### NATIONAL BUREAU OF STANDARDS REPORT

7337

### USE OF A COMPUTER TO PREPARE PERSONNEL REPORTS AT THE NATIONAL BUREAU OF STANDARDS

by

Genevie Urban and Iris Lloyd



U. S. DEPARTMENT OF COMMERCE NATIONAL BUREAU OF STANDARDS

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**NBS PROJECT** 

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by Genevie Urban and Iris Lloyd

Data Processing Systems Division

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### USE OF A COMPUTER TO PREPARE PERSONNEL REPORTS AT THE NATIONAL BUREAU OF STANDARDS

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### I. SUMMARY OF THE SYSTEM

This report covers the systems analysis and programming work done at the National Bureau of Standards involving the use of automatic data processing equipment to prepare personnel reports and statistical tables of data about employees and positions.

An IBM 704 computer is being used to process data about the employees, research associates, and guest workers of the National Bureau of Standards, and to produce from these data 37 regularly scheduled reports or listings and an estimated 40 nonrecurring reports per year. Eight of these reports must be prepared by all civilian agencies of the Federal Government. Twenty-six reports are supplied for internal management use at NBS. Three listings are used in the Personnel Division of the Bureau to replace card files and manually prepared lists needed in handling day-to-day personnel activities. The frequency of the preparation of these reports varies from monthly to quarterly, to semi-annually, to annually. The 40 nonrecurring reports are those which are needed because of special circumstances, so that the reporting requirements cannot be specified until the time that the report is requested.

The input data comprise 40 items of information about each of approximately 3,700 employees, and five items about 300 research associates and guest workers who do research at the Bureau but are not on the payroll. To prepare for input to the computer, the data are first written by hand on specially designed coding sheets by clerks in the Personnel Offices. Cards are then punched from the coding sheets. The data are listed from the cards and checked by the originating source. After any necessary corrections are made, the data cards are converted off-line to magnetic tape and are ready for input to the computer.

NBS has two offices through which all personnel actions are handled - one in Washington, D.C., and one in Boulder, Colorado. Punched cards reflecting Boulder activity are prepared in the Boulder office and sent to Washington, where the computer is located.

Reports are distributed from the Washington Personnel Division. Some reports are prepared for management use at Washington only, some for Boulder only, and others for the two laboratories jointly. Reports are prepared by the computer in edited format, i.e., formats are stored in the computer program. Therefore, reports can usually be used just as they come from the printer without retyping, though some reports which go outside the Bureau must be retyped on special preprinted forms.

### II. PROBLEM DEFINITION AND FEASIBILITY STUDY

A study was made to determine the feasibility of using a computer to prepare NBS personnel reports. The first step in this study consisted of determining the reports and listings needed by the Personnel Offices, and the items of information which are needed for their preparation. This analysis of the output requirements was carried out by a management analyst who was familiar with personnel procedures but had no orientation in the use of computers.

### A. Analysis of Reporting Requirements in the Personnel Office

The analysis began with a review of all the reporting requirements in the Personnel Offices. A copy of each report was obtained, and the process of manual preparation was defined. For example, a general description of the SF 113, Monthly Report of Federal Civilian Employment, is as follows:

"Report shows personnel actions for the month, giving accessions, separations and conversions, with breakdowns by type. Status of the staff as of the end of the month is shown. Data are further arranged by general geographical distribution. Sample attached. In order to get the data for this report, the service record clerks tally personnel actions daily on the CD 63. Tally sheets are collected at the end of the month from Washington and from Boulder. The individual tally sheets are summarized and the necessary dollar figures are obtained from Payroll. The service record clerks spend 25 hours a month on the report, and the final summarizing and compilation require an additional 5 hours."

The reports were then reviewed with the staff of the Personnel Division to determine if there were any which could be eliminated or combined with others. Consideration was also given to the inclusion of any new reports which might be needed. As a result of this review, several reports were eliminated, many were revised, and a few new ones were added.

This general collection of reports was further reviewed to select those which were adaptable to machine preparation. Narrative reports were at once eliminated, although some reports having statistics as well as narrative were included for the statistical part alone. Reports for which the assembling of the input data constitutes preparation of the report were not included; for example, a list showing those employees who received incentive awards during the year.

The resulting tentative list of reports to be considered for computer preparation was then subjected to more comprehensive analysis. The requirements for each of these reports were listed in logical sequence, explaining exactly the data to be used and how they were to be presented. This detailed analysis was written as if the report were to be prepared on punched-card tabulating equipment. This could have been presented in flow chart form, since the basic requirement is that the presentation be clear, concise and absolutely complete. The following is an example of the analysis of one report:

### Whitten Review

- (1) Assemble deck of Employees, as of end of the fiscal year.
- (2) SORT on Full-time, Part-time, WAE for full-time.
- (3) SORT Full-time on Service for GS. (This is now the deck to be used.)
- (4) For GS, PUT IN ASCENDING ORDER by Grade starting with GS-1.
- (5) COUNT the number in each grade and total.
- (6) COMPUTE the percentage in each grade, rounded to three places.
- (7) MULTIPLY the grade by the numbers in each grade to obtain grade number.
- (8) COMPUTE the average grade.
- (9) ADD to show total GS Employees.
- (10) LIST the report, giving the grades, numbers in each grade, percent in each grade and grade numbers. Show also the average grade and total GS Employees.

It was also found convenient to have a summary of the reporting requirements for all reports and lists to be included. The following format was used in this study. Each report was given a one-line entry in the table.

		Desti- nation	Format	Туре	Frequency	Remarks
Report Number	Name	Agency Outside '	Use Machine Run Retype	Statistical Listing	Monthly Quarterly Semi-annual Annual	
NBS 007	Report of FT PT and WAE		х	X	х	

Totals of the various columns give statistical information about the reports in the system.

### B. Definition of Items Required to Prepare the Reports

From these detailed analyses, the items of data which are required to prepare all of the reports were identified. For example, from the outline of the Whitten Review it can be seen that the following items are necessary for this report:

Full-time, Part-time, WAE (Nature of Employment)
Service
Grade

The analyses of 37 reports and listings produced 40 items of data.

A conventional method of recording such analyses is the use of a chart with the reports and listings entered on the left and the items written across the top of the chart. Checkmarks are then used to count the number of times a given item appears on the reports and to show the number of items on each report. However, in analyzing so many reports with such a large number of items, a card system was found to be more convenient. An identification number was assigned to each report, and multi-aspect cards were used. As each new item was identified, a card was prepared for this item showing the reports (identified by number codes) on which the item occurred. 1

See Casey, Perry, Kent, Berry, Punched Cards, Rheinhold, N.Y., 1958, Chap. 6, "The Peek-a-boo System--Optical Coincidence Subject Cards in Information Searching," by W.A. Wildhack and Joshua Stern.

For this phase of the analysis, multi-aspect cards were not absolutely necessary but had the advantage of being available for further detailed analysis of the items listed. The items can be grouped by aspect coding, such as geographic location items, type of personnel action items, and any other aspects which will group like items together for possible combinations.

After the 40 items had been identified, they were reviewed for the following points:

- l. Number of reports in which the item occurs. An item which occurs in only one or two reports was at once open to question. Since each item of data must be obtained for the machine file originally, as well as be kept up-to-date as changes occur, a decision was made regarding each item as to whether the use of the item is sufficient to make the effort of obtaining and maintaining it worthwhile.
- 2. Source of the item. It was found desirable to have the input data available from a limited number of sources and to have a method of recording changes to data which were already established. Procedures were established for obtaining data which had never been collected before. For example, information must be obtained annually from each organizational unit in NBS in order to maintain current information on academic degrees.
- 3. Extent of combinations of items. The number of items to be included was reduced by making some items into subgroups or aspects of other items. Items which are opposites of each other were combined. For example, the items "citizen" and "foreign national" were combined, since an employee is either one or the other. Another example is that of using a zero salary to indicate WOC (without compensation).

In some instances two items were grouped into one to convey two ideas. For example, an entry in "date of return from LWOP" shows that the employee has returned from LWOP, as well as the date when this occurred.

In some items, subgroups were established so that everyone in the population falls into one of the categories, as for example in the item "professional status". Each employee falls into one of the four categories -- professional, subprofessional, wage board, and administrative-clerical.

4. <u>Definition of items</u>. Items included were given rigid definitions. Civil Service definitions sufficed for the major portion of the items. If an exact definition was not already in effect, it was established, so that all information would be consistent. For example, the definition of a student is "an employee who spends more than half-time during the year attending

courses at a college or university, or is a recent high school graduate who is planning to enter college in the fall." The definitions are included in the coding pattern which is used by everyone working with the data. (See Attachment B.)

Several other considerations in the selection of items to be included should be mentioned. In addition to the analysis of regular reports and listings, a study was made of the nonrecurring (on-request) reports which had been prepared during the preceding year. From this study an effort was made to anticipate the requirements for future non-recurring reports and to include items of data which might appear in such reports. The analysis of these reports indicated that most of them could be prepared with the items which were being included for the regular reports. Therefore, it was decided not to include any items which were found only on special reports; however, extra space was reserved to enable the inclusion of other items as required.

Any office at NBS may request a special report by completing NBS 221, Request for Special Report. (See Attachment H.) Two examples of non-recurring reports are:

- 1. Top of the Grade List a name list and tally of employees in certain grades and series who are eligible for the top of the grade (e.g., scientific pay raise). This was used both as a list of those to receive personnel actions and as data for computing the cost of the increased salaries.
- 2. Eligibility List for Health Insurance a name list showing those who are eligible for insurance and those who are ineligible, with the reason for ineligibility. This was used in distributing health insurance forms and as a reference for counselors on insurance.

### C. Computer Preparation of Reports versus Manual Preparation

The advantages of machine preparation of reports over manual preparation are seen particularly in the case of reports which use the same data arranged in different sequences. The majority of the personnel reports are tallies of the same data at different periods of time and in different degrees of detail. For example, the SF 113, Monthly Report of Federal Civilian Employment, requires data on all paid employees distributed by geographic location and by type of appointment. It also requires information on accessions and separation of employees, by geographic location and by type of accession and type of separation. This report is prepared monthly. The same data on the geographic location of duty station of employees are required in the Geographic Survey of Federal Civilian Employment, except that this report is prepared annually and requires a much finer breakdown of the duty station. The Report of Wage and Salary Distribution, also prepared annually but at a different time of the year, distributes employees by geographic location broken down by

step-within-grade of employees. In manual preparation, each of these reports is prepared separately from original data without reference to the fact that the others must be prepared. The differences in the reporting requirements and in the date when the reports are due make it necessary for the process to be repeated for each report, even though it involves presentation of the same data in different forms. When these reports are prepared by a computer, the data can be presented in many different forms by the use of different machine programs. The monthly updating of the file not only serves to keep the data up-to-date, but also indicates personnel actions to be recorded on certain reports.

### D. Final Selection of Reports to be Included

The final list of reports to be included was reviewed with the computer programmer for any modifications that would make them more adaptable to computer preparation. In a few cases, a reconsideration of the requirements was requested. For example, one report which contained both medians and means was revised to include only means, since the computation of medians on the computer is difficult because of the memory space required. In other cases, changes in the format of the reports were suggested to make them more suitable.

In addition to the regular reports, it was decided to include in the system certain employee lists for use in the Personnel Offices. A review of the work processes had shown a number of lists, card files, and flagging arrangements being prepared manually for use in processing personnel actions or as work sheets for various processes. As with reports, these were being prepared by posting data from the employee records to sheets or other cards. Where repetitive use of data was involved, a machine-prepared list was substituted. Examples of these lists are:

NBS Report No. 010 Flagging for Interviews with New Employees and In-Grade Increases

NBS Report No. 041 Flagging for Length of Service Awards and Retirement

Also, reduction-in-force lists are prepared by the computer when required, eliminating the necessity for maintaining a retention register on cards.

### E. Design of Test Model and Cost Estimates

After a review by both the management analyst and the computer programmer, some preliminary work on the design of the computer system was done to provide a basis for estimating the cost of regular production of reports. A sample file of about 100 employees was prepared and two sample

reports were programmed for computer preparation. Formats for output were included in the computer program so that those concerned could see just how the output reports would look.

A memorandum outlining the entire proposed system, in a general form, was then prepared. This proposal included methods of preparing the input data and establishing the master file of employees, and the procedure for monthly runs of reports. The test file and the two sample reports described above were attached to the memorandum, which was then circulated to the five division chiefs at NBS who would be concerned with the system for machine preparation of reports. They were asked to sign the memorandum if they concurred with its recommendations. Signing of the memorandum constituted a commitment by each division chief to cooperate in the proposed procedures, according to a given outline. This also assured top management that the five division chiefs agreed to the proposal. It was felt that circulating the memorandum at this point in the development of the system was valuable to the ultimate success of the system.

At this stage of the analysis, it was estimated that the cost of the computer system was approximately equal to the cost of manual preparation of the reports. However, approval was given to proceed with the computer system because of the advantages it provided in rapid production of reports and in the ability to perform more complicated analyses of personnel data than could be readily done manually. After the first six months of production, it appears that the cost of the system is about 75 percent of the previous estimate; thus, the computer system may yet prove to have a financial advantage as well.

### III. DESIGN AND IMPLEMENTATION OF THE SYSTEM FOR COMPUTER APPLICATION

In the final phases of the systems analysis just described, the computer programmer was consulted from time to time, but it was not until this stage that the project was carefully analyzed in terms of the computer to be used and the data that would flow through the computer system. The IBM 704 located at NBS was the obvious choice for the application. This also provided a chance to evaluate the data-processing use of a binary machine, designed primarily for scientific computation. (However, the authors later concluded that the personnel reports application is more closely related to a scientific application than is, for instance, an accounting application.)

### A. Encoding of the Data and Record Layouts

The big decision in encoding the data was whether to translate all, or nearly all of the items into a numerical code which would be easier

for computer manipulation and which would conserve memory and tape space, or whether to retain as much of the data as possible in a form somewhat similar to the original. The latter is obviously easier for the personnel clerks in translating and checking the data. Of course, a third alternative is to have a translation program which converts from an external to an internal format as the data go into the computer, and the reverse as they go out. However, it was decided to simply retain as much of the original form of the data as possible, and where codes were necessary, to make them symbolic if feasible, e.g., F for female and M for male. Most of the data manipulation for personnel report generation involves comparisons and logical decisions or sequencing. Very few of the reports use the items of data in arithmetic computations, such as would be the case in a payroll application. Numerical codes were assigned to facilitate the tally selection in various reports where symbolic notations were of no great advantage. On the SF 113, for example, type of appointment has line numbers as follows:

- 2 Excepted, limited or conditional
- 3 Excepted, permanent
- 4 Competitive, career
- 5 Competitive, career--conditional
- 6 Competitive, limited tenure

Codes 2 through 6 were therefore assigned to "type of appointment". For further elaboration in other reports, subscripts A, B, etc., were attached to some of the above numbers. The item, "geographic location of duty station" was assigned several coding levels. The major area breakdown, for column selection on the SF 113, was given in the first of three characters assigned to that item, a state code (or metropolitan area in the case of D.C.) was given in the second character, and a county code in the third.

Item length was generally limited to the number of characters required to describe the item, but in some cases, such as employee number (5 characters) and organizational unit (5), the item length was rounded out to six characters to occupy one 704 word. Blanks were introduced into the sixth character, thus allowing for easy readability of the items when combined within a master record. Where possible, conformity was maintained with codes used in the payroll punched card system to facilitate occasional exchange of data.

Figure 1 lists all items included in the master record, with an example of each.

		Max. No.	
	Description	Char.	Example
1.	Organizational Unit	5	12.05
2.	Employee No.	5	69750
3.	Employee Name	24	John H. Richardson
4.	Date of Birth	6	092030
5.	Service, Grade and Step	6	GS-09A
6.	Position Title	24	Mathematician
7.	Position Option	12	Programmer
8.	Series	5	01520
9.	Salary Code	1	2
10.	Salary	6	010030
11.	Date of Entry on Duty	6	110654
12.	Position Number	8	10049.1
13.	Administrative Title	4	DC
14.	Nature of Employment (full-time,		
	part-time, or WAE)	3	FT
15.	Geographic Location	3	E22
16.	Departmental or Field	1	D
17.	Professional Status	1	1
18.	Sex	1	M
19.	Citizenship	1	Y
20.	Veteran's Preference	1	3
21.	Type of Accession	1	4
22.	Type of Appointment	2	6B
23.	Type of Appointment Authority	2	20
24.	Separated Career Employee Code	1	С
25.	Date of Last Promotion	6	123150
26.	Date of Last Pay Change	6	062460
27.	Date of Last "Per Step Increase"	6	030360
28.	Physically Impaired	1	H
29.	Research Assoc. or Guest Worker	1	1
30.	Minority Group Code	2	01
31.	Student	1	S
32.	Residence Code	1	R
33.	Date of Return from LWOP	6	092159
34.	Year Received BS Degree	2	54
35.	Year Received MS Degree	2	56
36.	Year Received PhD Degree	2	60
37.	Competitive Level	6	CLKIV
38.	Retention Group	4	111B
39.	Service Computation Date	6	041552
40.	Status of Position	1	F
41.	Date of LWOP or Suspension	6	060560
42.	Type of LWOP or Suspension	2	7

(See Attachment C for the arrangement of these items in 704 words on the master tape file.)

Figure 1.

### B. Forms Design: Establishing and Maintaining the File

In order to establish the master file, the data for each employee were arranged on three cards. These same arrangements are used to add new employees to the file. (See Attachment C.) It had been planned originally that the cards for establishing the file would be punched directly from the card index file in the Personnel Office, but after a short trial it was abandoned in favor of the personnel clerks writing the information on specially designed coding sheets and then punching the information from these sheets. (See Attachment A.) The sequence of items on these input cards is almost identical to that of the master tape record.

As soon as the forms were designed and printed and a target date was established for the completion of a portion of the computer program, the personnel clerks began the translation of the files onto the coding sheets. The cutoff date of January 1, 1960, was established, and any personnel actions after that date were considered as changes to the file. The original coding sheets for the 2,500 employees in the Washington office were completed in approximately 440 man-hours, and punched and verified in 200 man-hours. This operation extended over a period of several months. The Boulder operation proceeded within the same time frame.

The cards were sorted, listed, and then checked by the personnel clerks for accuracy. As soon as the corrections were posted to the cards, they were ready for conversion to magnetic tape and input to the computer program to establish the master file. The program to establish the master file is simply a special case of the regular file maintenance program; i.e., it is accomplished by inserting the proper control cards into the computer, causing the appropriate switches to be set within the computer program.

At the same time that the coding sheets were being designed to establish the file, plans were made for changing the file. As mentioned before, accessions to the file are submitted on the same coding sheets as those used for the original conversion. A coding sheet and card layout were designed for deletion of employee records from the file, which included all information needed to form reports about separations as well as to delete the record from the master file.

For changing the file, it was decided to use a nonrigid card layout, rather than to place a certain item in specified columns on a particular card as is the case with the accessions and separations. Each of the items was assigned a field number. A change in an item is entered as a field number, followed by the new value of the item. The end of that change is indicated by an end of field mark; in this case, the "=" was chosen for this purpose, since it was not expected to occur in any of the alphanumeric data. The only rigid

information, then, on a change card of this sort is the identification, in columns 1-12, of the employee to which the change referred. Beginning with column 13, the changes are punched, one behind the other, through column 71. Column 72 is used to indicate the card code (F) which informs the program how to handle the information on that card. If one card is not sufficient to contain the changes for a particular employee, a second card is punched. The right-hand end of the field need not be spaced out when data do not occupy maximum item length, as in the case of name. The program blank-fills the item for insertion into the master record.

Coding sheets were designed for the change cards. Each item name and field number are preprinted on the sheet, with a space for the new value of the item to be typed or written in by the personnel clerks. Space is allocated on the sheet for the effective date of the changes listed. Effective dates are necessary in such reports as the Detail of Personal Services for budget purposes. Special instructions to the keypunchers for these forms are also preprinted on the sheets. This method of changing the file decreases the number of change cards read into the system, since in cases such as a promotion all the change information can be placed on one card. The name of the employee is listed on the coding sheet but is not punched into the card. It is merely there for convenience and reference.

Instructions for both encoders and keypunchers were prepared to accompany each of the different types of coding sheets. In addition, a "coding pattern" was compiled, giving instructions for the conventions to be followed in the preparation of each of the items, such as insertion of leading zeros, use of periods or decimals, standard abbreviations, etc. (See Attachment B.)

### C. Flow Charting and Programming

Since the 704 computer at NBS contains 32,768 words of high-speed core memory, it was decided that the file maintenance and generation of reports could be accomplished in one pass through the master file each month. Except in special instances where data are particularly needed at some time other than the regular monthly run, this is the only pass through the master file. The monthly updating was chosen because none of the regularly recurring reports occurred more frequently than monthly.

The master file, ordered by organizational unit and employee number, is designed for convenience in generating all regular reports originating in the Personnel Division. However, the system includes one annual report for the Budget Division, using information from the personnel file and the monthly changes to that file. This report, "Detail of Personal Services", is prepared each fiscal year at the request of the Bureau of the Budget to

be included in the President's budget submission to Congress, and is oriented to positions rather than to employees; i.e., it is concerned with the actions affecting a position, rather than with the employee who occupies it. Therefore, it seemed logical to retain this type of information in a separate file (referred to hereafter as the position file) which is ordered by position number. The position file contains all positions which were filled at the beginning of the fiscal year plus all positions filled or vacated by accessions and separations during the fiscal year, as well as any changes in the information contained in the position file record. At the end of the fiscal year the position file is used as input to a separate program which compiles the "Detail of Personal Services" report. (See Attachment E for flow chart.)

- 1. File Maintenance. The flow charting and programming of the file maintenance was completed first, allowing for later insertion of the programs for report generation in modules as they were completed. The file maintenance program is designed to accomplish the following basic actions:
  - 1. Make set-ups for the conditions which exist for a particular run, on the basis of certain control cards.
  - 2. Read a master record.
  - 3. Change this master record if a change card matches the identification fields of the record.
  - 4. Record the types of changes, if any, in a form for interrogation by the report generation phase.
  - 5. Record any changes which affect the position file.
  - 6. Write the master record.
  - 7. Send control to the report generation phase, which tallies and processes the employee record through any reports which may apply to him and then returns control to step 2. above.
  - 8. When all records and all changes have been processed, make necessary summaries, end of file, etc., and send control to the report writing phase.

Of course, allowances must be made for all contingencies and the occurrence of all combinations of the flow of data that could ever occur, for example, reaching the end of the change deck before reaching the end of the master file, or vice versa, errors in the change deck, etc. (See Attachment E.)

Certain refinements of the file maintenance phase are the printouts in "clear text" (descriptive words instead of codes) of the changes that
were made during the run, a print-out of the entire master file, and the
sorting and merging of those records which had changes in organizational
unit and/or employee number. When there is a change in either of these
sequence fields, the master record involved is written onto an auxiliary
tape. At the end of the file maintenance, this auxiliary tape is read into
the computer, sorted internally, and merged with the main master file,
which up to this point contained only those records that did not have a change
to the sequence fields.

2. Report Generation and Writing. Since the reports that occur other than monthly are due at the end of various months during the year and since there is a need for insertion of the special-request reports, the system was designed to select the reports to be generated and/or printed in any one month by selection control cards, which may vary from month to month. Sixty-four report numbers are allowed for in the system; the present system of regularly recurring reports uses about 40 of these. Special-request reports can be programmed at the time of request, assigned a report number (any octal number 000-077 which is not already used), assembled, and added to the program deck for file maintenance and regular reports. By changing two or three transfer addresses in the main program, the special report will be generated along with the regular reports. Numbers and machine locations of the program instructions can be overwritten by other reports at different reporting periods. Thus, it is only the file maintenance and regular reports that occupy a fixed portion of memory.

For the purpose of computer processing, all reports to be generated fall into two broad categories, statistical summaries and lists. During the pass through the master file, the statistical tables are compiled and held in memory until the entire file is exhausted and then written onto an output tape in proper format for off-line printing. List reports, on the other hand, contain several items of information about each employee and occupy much memory space. Therefore, the information for the list reports is stored on an intermediate tape during the main run. This tape is then used as input to a separate program, which sorts the information by report number and various other sequence keys and writes the edited reports onto a tape for off-line printing.

At this point, it might be appropriate to compare the different types of reports and to describe some of the problems involved in programming them.

Many of the statistical tables which are required are simple tabular arrays whose independent variables ascend or descend by even steps, thus allowing for the use of the value of an item itself to select the proper position within the array. Other tables, however, are based on data having no logical

structure, at least within computer constraints. For example, Civil Service series may be any set of five characters from 00001 to X9999. A given agency may have only two or three hundred of these, and the ones they do have may be randomly interspersed throughout the possible range and may vary between reporting periods. Tally locations must therefore be selected by some sort of table storage, which is generated by the existing data.

Many of the reports (both statistical and list) reflect the status of the file at the end of the reporting period; others show the various activities, such as promotions, separations, and accessions, which occurred during the period. This requires keeping a "history" of the activities and interrogating this history in various reports.

The reports in the system vary in degree of complexity from the very easily programmed (such as NBS 030, List of Grades 15 and 14), - to the moderately complex (such as SF 113, Report of Federal Civilian Employment) which reflects the status of the staff at the end of the month, as well as certain personnel actions; to the more complex (such as NBS 005, Retention Group III Employees) which requires decisions based on various combinations of data and actions to determine the additions and deletions of Group III employees during the month. Detailed flow charts for these three reports are presented in Attachment E.

There are numerous functions performed in machine coding the reports that are common to many reports. These functions vary from simple grade-range comparisons to the more involved operations such as sequencing. Subroutines were written to perform these functions and are especially useful in programming new reports or special-request reports, which often require only a combination of subroutines already existing in the main program.

3. Output Format of Reports. Wherever possible, the output formats of the reports were designed to resemble closely the final format that would be needed, thus avoiding retyping of the report. In one or two cases of reports going outside the agency, a special preprinted form is required, and submitting the report as generated by the computer is not practical. However, in most instances, the computer output, perhaps reduced and duplicated, is quite acceptable as the final format. In all instances of internal management reports, the report is used in its computer format.

Outputs other than reports comprise the "clear text" print-out of the changes which occurred during the reporting period and a print-out of the master file. These outputs are for use in checking the accuracy of the data changes which went into the system and for routine reference in the Personnel Office.

For samples of all report formats and other outputs, the reader is referred to Attachments D and I.

### D. Code Checking and Implementation

- 1. Program Debugging. The file maintenance program was first checked using controlled test data. As soon as three or four of the reports were programmed, the master file was converted to magnetic tape and the first few months'changes were used to test those phases of file maintenance which test data do not always cover. The first reports to be checked through the system were the SF 113, Monthly Report of Federal Civilian Employment; NBS 023, Professional Personnel with Academic Degrees; NBS 063, Report of Wage and Salary Distribution; and NBS 061, Whitten Report. The results of these reports sometimes showed discrepancies in the file data, thus providing significant feedback to the system. As other reports were programmed, they were added to the system and debugged. Translation of the file to a form for conversion to tape had begun in January, 1960, and by July 1, 1960, the system was sufficiently checked to begin parallel operation. However, several non-monthly reports required by the Civil Service Commission and by NBS management were generated during this period and submitted without any direct parallel comparison with manually prepared reports.
- 2. Detection of Errors in Data. The input data for accessions, separations and changes are checked for accuracy at the originating source. In addition, one person in each Personnel Office is responsible for reviewing coding sheets before they are keypunched, as well as for checking the data just before they are converted to magnetic tape for the computer run.

Nonetheless, in spite of checking at the source, coding and keypunching errors do get into the computer. Inconsistencies and errors in the input data presented a greater problem in implementing the system than had originally been anticipated. Errors such as omission of the field number in a change or submitting wrong identification on the change card caused much havoc in the first few months of test operation. As more knowledge was gained concerning the type of errors or inconsistencies to expect, built-in detections and bypasses were programmed into the system. (See Attachment G.) Certain checks in the program flag the errors in the data which affect the tabulations; when such errors occur, the reports involved must be manually adjusted and coding sheets prepared to correct the file. Another error check rejects change cards with improper identification; still another flags a change which contains an item with improper field length. The error flags, along with the routine "clear text" printout of all changes, are reviewed in the Personnel Office.

It is planned to incorporate into the system an editing program which will periodically read the master file and make extensive comparisons and cross-checks among the items of data, and which will provide adequate notification of any errors that are detected. At this time, however, the program is not complete.

### E. General Description of the Computer Run

The program requires the use of eight magnetic tape units, one of which contains the 704 Input-Output and Monitor System, BE SYS.2, which was originally designed as an operating system by the Bell Telephone Laboratories. The system in use at NBS is a slightly modified version of the original Bell system.

The computer instructions are read in from column binary cards (either directly or from a tape which has been written by an off-line card-to-tape operation). At present, there are approximately 9,000 instructions and constants for the file maintenance and the generation of any of the 37 regularly recurring reports. Following the program deck is the data deck, which contains a control card (date, etc.), a tape label card, a group of cards identifying the part-time and intermittent employees who did not work during the month, and one or two cards selecting the reports to be generated during the run. The updating deck (accessions, separations, and changes) follows, if it is to be read directly from cards. The normal operation procedure, however, involves off-line conversion of the cards to magnetic tape. (See Attachment F for the exact layout of the computer run.)

The processing is then begun, using the following general tape layout:

Tape Unit A. Bell system tape.

Tape Unit B. Master file (input) from the previous month's run.

Tape Unit C. Accessions, separations, and changes for the reporting month (from off-line card-to-tape conversion).

Tape Unit D. Updated master file (output) - preliminary only.

Tape Unit E. List reports in unedited form.

Tape Unit F. Position file tape.

Tape Unit G. Tape containing file of employee records which had changes to the sequence fields, to be sorted and merged with tape D; also final sorted and merged master tape.

Tape Unit H. Output tape for off-line printing of all changes made during the run, all table reports, and the updated master file.

At the end of the first phase, the updated master file, Tape D, contains only those records which did not have a change to the sequence fields. During the second phase of the operation, Tape G is read into the computer, sorted and then merged with Tape D. The final sorted master file is written on Tape G.

The entire file maintenance and report generation, including producing a sorted master file of about 4,000 records and a tape output for hard copy printing, is accomplished in approximately 25 minutes on the 704 computer.

### IV. SUMMARY AND CONCLUSIONS

### A. Costs

The monthly cost of processing NBS personnel reports on the IBM 704 is approximately \$210 for the preparation of an average of 800 items of input data and \$100 for the computer time. In addition, about one and one-half hours of off-line printing are required, as well as the usual distribution of miscellaneous costs involved in a production process.

Because of the time necessary for the data preparation, some thought is presently being given to increasing the amount of automation in this phase of the operation. Preparing the SF 50 (Notification of Personnel Action) on a Flexowriter, with punched paper tape or punched cards as a by-product, would eliminate the need for preparing coding sheets and punching data for such actions as accessions, separations, promotions, transfers between organizational units, etc. It might also be feasible, using this approach, to submit in-grade increases on the SF 50. However, since flagging for probable in-grade increases is a part of the present NBS system, a proposal for preparing punched cards directly from the computer flag-list is being considered. An automatic decision on in-grade increases cannot be made in our system because of the lack of payroll information regarding short-term LWOP. LWOP is introduced into the system only if it is of such length as to cause an official personnel action. The computer flag-list must be reviewed by Personnel and Payroll to determine the exact date an in-grade increase is due.

### B. Future Integration of Personnel Data with Financial Data

Though the present application at NBS is not part of an integrated financial management system, it has been planned with the thought that ultimately it would be integrated with other phases of NBS operations. To anyone who is planning personnel reports as a part of an integrated system, it is obvious that the payroll information occurring in some of the required reports would be directly obtainable in an integrated system.

Much of the information needed in a payroll master record is repeated in a personnel record, and thus combining the two records would perhaps be worthwhile. On the other hand, there are such problems as the incompatibility of the required reporting periods for payroll and personnel reports--biweekly versus monthly.

### C. Use and Acceptance of the System by the Administrative Staff and by Other Government Agencies

In addition to the general distribution of the Users Manual of Reports, statistical reports are assembled quarterly into a brochure for the use of NBS management. There has been a great deal of interest in this quarterly compilation of reports, with discussions about interpretations which would be useful in high-lighting the significance of the data presented. For example, a suggestion has been made that the Personnel Division, in reviewing these reports, mark in the margin comments which will high-light figures that show significant changes or trends. This can be done before the reports are duplicated and become a part of the report itself. Also, data accumulated over a period of six months or a year will be analyzed for trends that are of significance to management, and these trends will be discussed with NBS management. After a period of review such as this, it is expected that some additional reports or revised reports will be programmed to show trends.

Since NBS has been working on this system, there has been considerable interest by other agencies in computer preparation of reports. There has been some discussion concerning the preparation of such reports at higher levels of government, such as the departmental level or the Civil Service Commission. Further discussion of these possibilities seems desirable, although such a system would have to take into account the needs of various agencies for special reports to be used in internal management.

### D. General Remarks

As stated previously, retrospective analysis of this project points out that, in many aspects, preparing personnel reports on a computer employs many of the techniques that are often found in a scientific application, as well as in a data processing one. This is particularly true at NBS, where most of the internal management reports are of a tabular or statistical nature. To generate this type of report, the data are used in index registers to select tally positions within the various arrays. Also, summary totals, percentages, and ratios are computed and presented in statistical format. Perhaps this conclusion might be of some small interest to those who are just now in the planning stages of their computer application.

As in most automated systems, the weakest link is the input phase. The human preparation of input data is susceptible to many and varied errors, and any good computer system should include a means of recognizing these errors, and in many instances a procedure for correction, lest "as ye input, so shall ye output."

ATTACHMENT A

Input Coding Forms

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U.S. DEPARTMENT OF COMMERCE NATIONAL BUREAU OF STANDARDS	CODING SHEET FOF PERSONNEL DATA ON RESEARCH ASSOCIATES AND GUEST WORKERS CARDS A, B, C, F, and G	CHANGES	Section and Employee Number on left	Key puncher: Pick up Division and Section and Employee Number from left side of sheet and punch in Cols. I through 11 of the F card. Thereafter use field punching procedure.			•				Y Citizen N Foreign nat.	1 Research Associate		(circle new status)	ATIONS	APLOYEE NO. (7). USE COLUMN			(9)
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FORM NRS-208 (REV. 7-17-61)									100

ATTACHMENT B

Coders and Keypunchers Manual

# NBS 296, Coding Sheet for Personnel Data on Research Associates and Guest Workers

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Accessions: Fill in the left hand side of the page only. See instructions in Coding Pattern.

Changes: When changes occur, always enter the Div. & Sec., Employee Number and Name in the left hand column. If one of these items is changed, the information in the left hand column will be the old data and the new information will go in the right hand column.

On change data, the only entries on the right hand side are for new information.

Separations: When a Research Associate or Guest Worker leaves, put his Div. & Sec., Employee No. and Name in the spaces in the left hand column. Then skip to the item "Separations" at the bottom right hand corner and enter the date of separation.

# nstructions to Key Punchers:

Use Cards A, B and C for all accessions.

For changes, use Card F and field punching procedure.

For separations, use Card G.

# INSTRUCTIONS ON ESTABLISHING THE FILE

# NUS 294, Coding Sheet to Establish File of Personnel Data

## Instructions to Coders:

Prepare a separate coding sheet for each employee on the rolls. This includes WOC's, part-time, WAE and other intermittent workers.

Establish a cut off date and record the employee's status on all items of information as of that date. The one exception to this rule is that no coding sheet will be prepared for separated employees, even though they were on the rolls on the cut off date.

Changes which had not gone to cover sheet as of the cut off date and other changes which have since occurred will be picked up later.

In preparing coding sheets for employees who are suspended or on LWUP, put down the situation that was in effect when they left as far as grade, salary, nature of employment, etc. are concerned.

The coding sheets require both filling in blanks and circling coding symbols. The blanks may be filled in on the typewriter or by hand. The number in parenthesis to the right gives the maximum number of spaces for blank items. Position Title and Option must be abbreviated where the number of spaces will not accommodate the full entry. There is not necessarily an entry for each employee for each ilem, since not all items apply to every employee. Before starting to to code, read the instructions on completing each item given, in the set of instructions titled, Coding Pattern.

When the first page has been completed, the form may be folded to the heavy line and creased, so that the Employee Name can be referred to when completing the rest of the

# Additional Instructions to Key Punchers:

Each employee will have Cards A, B and C. Card E is prepared only if there are entries for these items.

The column number where each field starts is given in the narrow column. Program cards should be prepared to start fields, as shown on the sheet of Card Layouts and to space out incomplete fields.

See the set of instructions titled Coding Pattern for information about the punching of each item.

Where there is no entry or circled code, leave the field blank.

Every card must carry a card identification punch in Column 72 (A, B, C, or E as circled).

When the page is turned over to punch the data on the back, the form may be folded to the heavy line so that Div. & Sec. and Employee Number can be picked up for punching on B, C and E cards.

# INSTRUCTIONS FOR HANDLING ACCESSIONS, SEPARATIONS AND CHANGES TO THE MACHINE FILE OF PERSONNEL DATA

# NBS 297, Coding Sheet for Accessions and Separations

# Instructions to Coders:

Use this form for all accessions and separations. Prepare the form at the time an action goes to cover sheet. Enter your last name, extension and the date at the top of the sheet.

The coding sheets require both filing in blanks and circling coding symbols. The blanks may be filled in on the type-writer or by hand. The number in parenthesis to the right gives the maximum number of spaces for the blank items. Name, Position Title and Option must be abbreviated where the number of spaces will not accommodate the full entry. There is not necessarily an entry for each employee for each item, since not all items apply to every employee. Before starting to code, read the instructions on completing each item given in the set of instructions titled, Coding Pattern.

Accessions: If some information on an accession is not known at the time the 52 goes to cover sheet, it may be omitted and added later by putting it on the Form 298, "Coding Sheet for Changes to Personnel Data." All accessions must show an entry under both "Type of Accession" and "Type of Appointment."

<u>Separations</u>: Be sure to enter Div. & Sec., Employee No. and Name for all separations. Skip all other data and go to Card E at the bottom of the reverse side of the page. Enter the effective date of separation and circle the type of separation. In item 21 show whether the position is to be carried as vacant or abolished.

Under "Reason for Separation and Comments" you may enter remarks, using as many as 49 spaces.

# Instructions to Key Punchers:

Program cards should be prepared to start fields, and to space out incomplete fields. See the Card Layouts.

See the set of instructions titled Coding Pattern for information about the punching of each item.

Where there is no entry or circled code, leave the field blank.

Every card must carry a card identification punch in Column 72 (A, B, C, or G as circled).

When the page is turned over to punch the data on the back, the form may be folded to the heavy line so that Div: & Sec. and Employee Number can be picked up for punching on B, C and/or G cards.

Accessions: Each accession will have Cards A, B and C. The column number where each field starts is given in the narrow column. The number to the right in parenthesis is the number of spaces in these fields.

Separations: Enter Div. & Sec. and Employee No. on Card G. Punch entries.

49 spaces are used to punch in the Remarks.

# Instructions to Coders:

This form is used for changes to the machine file, as distinguished from adding an entire employee record (accession) or deleting an employee record (separation).

The NBS 298 is used either when information about an employee changes or is added, or when corrections need to be made because of clerical or key punching errors.

Each form must carry the Div. & Sec., Employee No., and Employee Name. If there are changes in any of these three items, enter the old data in the first three items on the form and put the new data on the lines labelled "New Div. & Sec.," "New Employee No.," and "New Employee Name."

After the identifying information has been put on the form, fill in blanks or circle codes only for the items which have changed. With the exception noted above, it is not necessary to give the old data. The form should reflect the new status of the employee. Always enter the effective date of the change.

If there is a change in the position number, the disposition of the old position must be shown under "Status of Position" by circling either V for Vacant or A for Abolished.

To blank out a field, put in #.

Procedure for abolishing a Vacant Position: A Form NBS 298 is prepared when a position which had been listed as vacant on a yellow vacancy sheet is abolished. Enter the Div. & Sec. of the position. For Employee Number, enter 00000. Leave Employee Name blank. Enter the Position Number. In Status of Position on the reverse side of the form, circle the "A" for Abolished.

# Instructions to Key Punchers:

Card F is used for all data from this form. A different punching system, which we are calling field punching, is used on F cards. In field punching, the identifying data is put on each card in the usual place, Div. 6 Sec. in Cols. 1-6; Employee No. in Cols. 7-12. From then on, column positions are disregarded, except to punch F in Column 72. Instead, punch the field number, (given in the narrow column on the form), the entry, and # (8-3 punch) at the end of the entry. It is not necessary to space out fields or to space between entries; they are punched one after the other, as many as the card will hold, through Col. 71. See the example on the Card Layout.

When there is more data on one employee than a single card will hold, take a second card, punch in the identifying data (Div. & Sec. and Employee No.) and continue field punching with the next field and entry. Always be sure to put in the # to signify the end of the entry. End each card with a complete entry and #, then space to Col. 72 and punch F for the card identification. The fields do not necessarily have to be punched in order and the cards need not be kept in any particular probler.

Do not punch the name of the employee unless the name has changed. The name is entered on all coding sheets as a reference for the Coders.

When a position which has been vacant is abolished, the Employee No. will be shown as 00000. Follow the same procedure for these as for other F card punching-enfer Div. & Sec., Employee No. (00000 as shown) and do field punching for the items indicated, which will be position Number and Status of Position.

To blank out a field, punch the field number and then # (8-3 punch).

#### CODING PATTERN

#### Notes on changes:

- action. For example, if an in-grade increase and a promotion are given on the same day, only the 1. When two actions which change the same item have the same effective date, code only the last promotion should be coded.
- 2. When preparing a change sheet to correct an error, the original effective date should be given. This applies either to previous coding errors or to administrative errors.
- 3. If there is a change which means that there should be no entry in a field which formerly had an entry, blank out the field by entering #. For example, if an employee went from a position which had an option to one which has no option, the change form should show # in Field No. 10.
- 4. On transfers from Washington to Boulder or Boulder to Washington, the Personnel Office at the employee's new duty station reports the change. A change form is used in this case (it is not the employee's status. The office releasing the employee should prepare a change sheet showing Employee Number, Geographical Location, and Departmental/Field as well as any other changes to an accession). Changes to be reported include Effective Date, New Division and Section, New disposition of the vacated position, following the instructions in this Coding Pattern under Status of Position,

#### EFFECTIVE DATE

The effective date must be given for all changes.

#### DIVISION & SECTION

The decimal point (which is already printed on the form) is counted as one of the five digits. Insert leading zeros where necessary.

EXAMPLE: 04.00 or 06.06

EMPLOYEE NO.

Enter leading zeros if less than 5 digits.

EXAMPLE: 03456

WOC's: Assign a regular employee number.

#### NAME

identification purposes. If there is no middle name, use first and last names only -- do not insert "NMN." Sequence is first name, middle initial (no period), last name. (Not last name first.) Use the middle initial instead of the middle name, unless the full middle name is needed for

EXAMPLE: JAMES C COLLINS JR

Abbreviate long names to 22 spaces.

#### DATE OF BIRTH

This date, and all other dates, are shown without hyphens or slash marks and with leading zeros if the number for the month, day or year is less than two digits.

EXAMPLES: January 18, 1935 is written 011835 November 5, 1937 is written 110537 December 23, 1905 is written 122305

### SERVICE, GRADE, STEP

If L. W. or S is used, it is put The third space is always a hyphen, The first two spaces are for Service: GS, L, W, or S. in the first space and the second space is left blank. which has already been printed on the coding sheet.

Grade is entered on the fourth and fifth spaces. Where the grade is 1 through 9, enter leading zero. Step is entered in the sixth space, either as a letter for GS or a number for Wage Board.

If there is no entry at all for any or all of these items, and should not be, put in asterisks. This would be in rare cases, such as PL 313's, consultants, employees reduced in grade but not in salary so that there is no step in grade, and etc.

6S-12A 6S-09X	W -101 L -033 S -011	<u>GS-04*</u>	***
ł	1	1	ł
			step
			or
			No service, grade or step
ries	pard	C.	rice,
entı	Wage Board	No step	ser
GS	Wag	N <sub>o</sub>	N <sub>0</sub>
EXAMPLES: GS entries			

Special case: For the Planner-Estimators in the Plant Division, use the following coding:

133 1/3% of a W-10 150% of a W-10 125% of a W-10

W -10A W -10C

Key punchers: Use the hyphen punch for these hyphens.

#### POSITION TITLE

Enter the position title as given if it occupies 22 spaces or less, counting the spacing between abbreviate it yourself. The words in a two or three word title may be separated by a slash (/). words. If the title takes more than 22 spaces, use an abbreviation from the list below, or

As much as possible, abbreviate position titles in the same way each time and don't use a period after an abbreviated word.

# Standard Abbreviations:

SUPV PHYS METALLURGIST PURCHASING AGENT GENERAL ENGINEER FELEGRAPHIC TYWR OPR MECHANICAL ENG TAB PROJECT PLANNER ELECTRONIC SCI TABULAT EQUIPT OPR HYDRAULIC ENG STRUCTURAL RES ENG SUPV AERO RES ENG ILLUSTRATOR SUPV PUBL EDITOR PAPER TECH SUPV SUPV SUPV SUPV SUPV SUPV SPV AERO ST MT RES ENG PRINTING & PUBL CLERK OPRS RESEARCH ANALYST PHYSICAL SCIENCE ADMR SCI INSTRUMENT MAKER MOTION PIC PROD SPEC GENERAL TRANS CLERK LABORATORY GEN MECH PERIPHERAL CP EQ OP GENERAL TRANS ASST MISC DUP EQUIP OPR MATH STATISTICIAN PHYSICAL SCI TECH PHYS METALLURGIST AERO PWR PLANT RES ENG AERONAUTICAL RES ENG FIRE PROTECTION INSP DIGITAL COMPUTER OPR ACCOUNTS MAIN CLERK ADMINISTRATIVE ASST BKKP MACH UNIT SUPV CARD PUNCH OPR SUPV GENERAL SUPPLY ASST DATA PROC APPL ANAL ELECTRO DEVLP TECH ENGINEERING TECH ANALYTICAL STAT ADMIN OFFICER

#### OPTI ON

Abbreviate options which take more than 12 spaces. Two word options may be separated by a slash.

Option	Standard Abbreviations
Administrative - Physical Science & Engineering	ADM-PS/E
Aeronautical Fuel Research	AER FUEL RES
Aeronautical Instrumentation	AERO INSTRU
Airport Lighting	APT LGT
Appılea mecnanıcs Assistant Registrar	AFLU MECHS ASST REG
Aviation Lighting	AVI LGT
Bookkeeping Machine Operator	BK MACH OPR
Cataloging - Physical Science & Engineering	CAT-PS/E
Circuit Elements	CIR ELEMENTS
Classification & Wage Administrative Officer	CL/WG ADM OF
Communications	COMMUNICATIN
Crystalline Materials	CRYST MAT
Developmental Design - General	DEV DES/GEN
Electrical Engineering	ELEC ENG
Electricity & Magnetism	ELEC/MAG
Electro-Acoustics	ELECTR ACOUS
Electron Devices Data Service	EL DVS DA SR
Electron Tubes	ELEC TUBES
Employee Relations & Training	EPL REL/TR
Instrumentation	INSTRUMENT
Instrumentation & Control	INST/CONTROL
Photographic Equipment	PHOTO EQUIP
Physical Science & Engineering	PHY SCI/ENG
Physics of the Atmosphere	PHIS/AIMOS
Kallway Scales Reference - Physical Science and Engineering	RWY SCALES RFF-PS/F
Note to the steam of the contract the state of the state	77 O 1 THE

#### SERIES

Use leading zeros if less than 5 spaces.

01310 00850 EXAMPLES:

X3410 \*\*\*\*\* for those without series

#### SALARY CODE

Circle, except no entry for WOC's.

#### SALARY

Use leading zeros if less than 5 digits. In hourly and daily rates, the decimal point takes one space. WOC's are shown by 5 zeros.

13970 07510 EXAMPLES: annual rates

43.68 50.00

daily rates

02.64 hourly rates

00000 ₩0C

\*\*\* Intentionally left blank

#### EOD DATE

Enter the last EOD date. Note that this means the latest one for students or others who have been separated from the Bureau and then reemployed.

#### POSITION NO.

Position Number has three parts, the prefix, the number and the decimal, if any, Use leading zeros in the <u>number</u> if it is less than four digits. The decimal point takes one of the 8 spaces when used. The decimal point is not punched unless there is an entry following it. Note that leading zeros are not used in the decimal.

Special Case: For the old position numbers where there is no prefix letter, simply run the numbers together, disregarding the position of the decimal.

If there are only four digits and no prefix, put the four digits in the center:

1234

### ADMINISTRATIVE TITLE

Circle the letters for the administrative title (D, DD, AD) if there is one. If the person is Acting in this position, circle the A for Acting. If the person has an administrative title and is also acting in another position, use his regular title. If there is no administrative title, leave blank.

EXAMPLES: Acting Director - DA Acting Division Chief - DCA If acting is circled, add the A in the next space after the code for Kev punch operators: administrative title.

#### NATURE OF EMPLOYMENT

Code WOC's as WAE. Circle the letters (FT, PT or WAE) for whichever one applies.

### GEOGRAPHICAL LOCATION

appropriate code letters for the employee's duty station. If none of these applies, find the proper code in the following list and write in the letters before "Other duty station." If This applies to the duty station, not the apportionment state or home address. Circle the the duty station is one not found on this list, write it on the coding sheet and send the coding sheet to Miss Lloyd to have a new code assigned.

(Code for Geographical Location appears on next page)

Code for Geographical Location

E31 E31	E41 E5	E51	E53	E6	E7	T (	E81	E85	E9	E91	E0	EA	EB	EB1	23	EC1	ED	EDI	EE	EE1			F	F11	ರ			
Outside Metro, Area (cont.) Illinois Mason County	Prince Georges County (exc. WWV) Massachusetts	Boston (Metro, Area)	Suffolk County	New York (state)	Pennsylvania	Lenign County	viiginia Fairfax (exc. Ft. Belvoir)	Warren County	Washington (state)	King County	Georgia	Wisconsin	Wyoming	Converse County	Utah	Salt Lake County	Oregon	Crook County	Connecticut	Hartford County		Alaska & Hawaii	Alaska	Anchorage	Hawaii			
B3 B4	5	525	2 4 2	CS	90	C2	3 5 5	3	CA	CB	8			D1	D2		D3				El	E11	E12	E13	E14	E2	E21	(bs) E22
Terr. G. Poss. Panama Canal Zone Puerto Rico	Foreign Countries Austria	England	rrance Germanv	Italy	Spain	Japan	Philippine Islands Rvuku Islands	Antarctica	Sweden	Peru	Belguim		Inside Metro, Area	District of Columbia	Va Wash. Metro. Area	incl. Ft. Belvoir	Md Wash. Metro. Area	incl. WWV		Outside Metro, Arca	California	San Francisco County	Riverside County	Alameda County	Santa Clara County	Colorado	Denver County	Boulder County (Boulder Labs) E22

# DEPARTMENTAL/FIELD, PROFESSIONAL STATUS, SEX, & CITIZENSHIP

Circle code.

### VETERAN'S PREFERENCE

Circle code if applicable. Skip if no veteran's preference.

#### TYPE OF ACCESSION

Circle code. If the employee has transferred from an agency within the Department of Commerce, circle O rather than 2.

#### TYPE OF APPOINTMENT

Circle code. For Competitive, limited tenure, circle 6 and <u>also</u> either A or B under 6 to show which type, If there is a change to Type of Appointment, be sure to show the change if any, to Retention Group.

# TYPE OF APPOINTMENT AUTHORITY

This item will apply only to a few employees. Use 11 Sched. A., 6.101 for students still on the rolls who were appointed under this authority and for any other Sched. A. 6.101's who do not fall under the next two categories.

# SEPARATED CAREER EMPLOYEES

Otherwise, skip the item. Circle the C if the accession is a separated career employee.

### DATE OF LAST PROMOTION

No entry unless the employee received a promotion at the time of entering on This item does not include promotions prior to coming to MBS. duty at NBS.

Grade and Salary -- otherwise, the action is not considered a promotion. There should also be Changes: When there is a change to Date of Last Promotion, there must also be changes to a change to Status of Position to show whether the old position is vacant or abolished. When Field No. 32, Date of Last Promotion, is changed, it is <u>not</u> necessary to show changes to Field No. 33, Date of Last Pay Change and Field No. 34, Date of Last PSI--these fields will be automatically changed by machine.

## DATE OF LAST PAY CHANGE

Accessions: Leave blank unless there was a pay change at the time of entering on duty at NBS. If there was such a pay change, it should be entered.

Changes: Enter pay changes, including reductions in pay, if the change is to pay only and not a promotion or PSI. Promotions and PSI's will automatically change this item.

#### DATE OF LAST PSI

Accessions: Enter the date of the last PSI, even though it is earlier than the EOD date. Every accession should have an entry for this item, except for PL 313's or other ungraded

Changes: This item must always be changed when there is a PSI, including giving the employee the last step in the grade or the highest Wage Board step. It is not necessary to code Date of Last Pay Change also when a PSI occurs -- this will be done by machine.

#### HYSICALLY IMPAIRED

Circle the H if the accession is physically impaired, otherwise, skip this item.

#### MINORITY GROUP

Code those belonging to minority groups at the time of accession by circling the number which applies:

- 01 02 03 04 05
- Mexican or Latin American
- Puerto Rican
- Chinese
- Japanese

#### STUDENT

æ Circle this if the employee spends more than half his time during the year attending courses at college or university or is a recent high school graduate definitely planning to enter college full time in the fall. This does not include recent graduates from college or graduate school who have no plans for more than half time attendance at a college within the next year.

#### RESIDENCE STATUS

0 ľ ŝ This must be coded for all employees stationed in the territories or possessions of the U. in Alaska and Hawaii who are U. S. citizens.

Code: N non-resident of place where stationed

resident of place where stationed

# DATE OF RETURN FROM LWOP

requires an entry under Type of Accession on the change sheet. Circle 9 "Restoration, return to duty." Use for all returning from LWOP -- principal use will be for students. A return from LWOP also

# YEAR OF BACHELOR'S, YEAR OF MASTER'S, & YEAR OF PhD

Enter last two digits of year only. Academic degrees should be put on the change sheet, if possible, when there is a change from sub-professional to professional or a change from part time to full time.

#### RETENTION GROUP

Enter the retention group as follows, except that for Temporary Limited and Excepted Limited, circle the codes. Use 1's for the I's in Roman numerals and enter leading zeros as to follows:

			,
			2
			Contomine
	011A	1118	* [00
2	IIA	IIIB	۰
XAMPLES:			

(asterisk in last column if A or B is omitted.) 100

Excepted Limited 300\*

Temp Limited

200\*

# SERVICE COMPUTATION DATE

If there is no service computation date, leave blank. Conventional date entry.

#### STATUS OF POSITION

The three subdivisions of this item are

Filled ۲. >

Vacant

Abolished

ಹ Therefore the forms carry On forms relating to employees, the position is always filled. Therefore the forms circled F for column 67 on Card B to tell the Key Puncher that this is to be punched.

# STATUS OF POSITION (Cont.)

on the change form if they wish the position to be continued as a vacancy or circle the A if they wish the position abolished. On separations, either the V or the A is circled on When changes are made which affect the status of the position, coders will circle the V the separation form.

made as an action separate from the personnel action, a change sheet must be prepared. Give the Division and Section, enter 00000 for Employee Number, fill in the Position Number, and When a vacant position is to be abolished, or disposition of a vacated position is to be circle the V for Vacant or A for Abolished.

# DATE OF LWOP OR SUSPENSION (Change sheet)

Military leave is Use this item for extended LWOP or suspension but not for military leave. reported a separation on the G card.

#### LWOP OR SUSPENSION (Change sheet)

This item must be coded when there is a Date of LWOP or Suspension.

#### DATE OF SEPARATION

Enter the effective date of the separation.

#### TYPE OF SEPARATION

Ιŧ Circle the code for the type of separation. Only one of the codes is to be circled, an employee transfers to an agency within Commerce, circle O rather than 2. In the case of disability retirements, circle 93 Disability, only.

### REASON FOR SEPARATION

Leave it blank unless there is some useful information to be recorded. The information listed employee went and the salary in order to show information on employees going to industry at higher salaries, or other data of this kind which will be of interest to the Director and under REASON FOR SEPARATION will be printed out on the monthly report on separations. It is suggested that this be used for notations such as the name of the company to which an Entries on this item should be brief and to the point to avoid unnecessary key punching. to Personnel for reviewing reasons for separations.

#### ATTACHMENT C

Master Record (tape file) Layout and Change Card Layouts

MASTER RECORD FOR EMPLOYEE (204 CHARACTERS)

QHN JONES 010140 GS-05A MATHEMATI- PROGRAMMER 0 1520 I 00 4510 062860 I 0346.11 ADCA WAE E CIAN A CI		24 EMPLOYEE NAME EMPNA	6 DATE OF BIRTH DOB	6 SERVICE, GRADE, STEP GRSTEP	24 POSITION TITLE POTITL	POSITION OPTION POSOPT	SERIES SERIES	SALARY CODE SALCOD	6 SALARY <u>SALARY</u>	6 E0 D DATE E0D	POSITION No. POSNO	4 ADMIN . TITLE ADTITL	3 NATURE OF EMPLOYMENT NATEMP	GEOGRAPHIC LOCATION GEOGLO
06 (MMA) 07 (1) 10 11 12 13 14 15 16	MAAM	N JONES +2,3,4,5	010140 MAS + 6	GS-05A N	-	PROGRAMMER MAS+12.13	0 1520 MAS	- 4	00 4510 MAS* 15		10346.11 MAS+17.4	ADCA MAS+IB	WAE MAS + 19 -	E 22
		04	02	90	0/2/0	0	=	2	13		15	9	21	50

RES. ASSOC. OR GUEST WRACR.	RESASS	1,2 or∆	25	ň
PHYSICALLY HANDICAPPED	HANDCP	Hor △	+ WAS +	35
DATE LAST PSI	DOPSI	112159	MAS+ 24	34
DATE LAST PAY CHANGE	DOLAPC	021060	MAS + 23	33
DATE OF LAST PROMOTIN	DOLAPR	112158	MAS + 22	32
(BLANK)				
SEPARATED CAREER EMP.	SEPCAR	C or △		31
TYPE OF APPT. AUTH.	APTAUT	50	MAS + 21	30
TYPE OF APPT.	TYPAPT	68		27
TYPE OF ACCESSION	TYPACC	2		56
VETERAN'S PREFERENCE	VETPRF	-		25
CITIZENSHIP	CITZN	Y or N		24
SEX	XJ.	M or F	MAS + 20	23
PROFESSIONAL STATUS	PROSTA	-		22
DEPTL. OR FIELD	DORF	D or F		51
	SEX CITIZENSHIP VETERAN'S TYPE OF TYPE OF TYPE OF SEPARATED (BLANK) DATE OF, DATE LAST DATE LAST DATE LAST DATE LAST PROMOTN PAY CHANGE PSI	OR PROFESSIONAL SEX CITIZENSHIP VETERAN'S TYPE OF TYPE	SEX         CITIZENSHIP         VETERAN'S         TYPE OF TY	SEX         CITIZEN SHIP         VETERAN 'S         TYPE OF

_				-	_
2	(BLANK)			1	
-	TYPE OF LWOP	TYPSEP	7	♣-MAS + 33	54
9	DATE OF LWOP	DOSEP	012560	MAS +32	53
ß	(BLANK)				55
_	STATUS OF POSITION	STATP0	L	MAS + 31	51
9	SERVICE COMP. DATE	DOSER	092053	MAS+30	50
9	RETENTION GROUP	RETGRP	001A A A   092053	MAS+29	47
9	COMPETITIVE RETENTION CROUP	COMPET	CLKIV	MAS + 2B	46
2	YR. RECD. Ph.D.	YRPHD	09		45
2	YR. RECD. M.S.	YRMS	22	- MAS +27 -	44
2	YR. RECD B.S.	YRBS	26		43
9	DATE RETURN FROM LWOP	DOLWOP	072160	MAS + 26	42
_	INT RESIDENCE D	RESID	R,N or △	(contd)	41
_	STUDENT	SORFS	S	MAS + 25	40
2	MINOR! TY GROUP	MINGRP	0		37

ABEL RECORD (72 CHARACTERS)	FOR MONTH OF	
LABEL RECOF	NBS PERSONNEL FILE, WRITTEN 2-12-61 FOR MONTH OF	
:	SONNEL FILE,	
	NBS PEF	A
	00000 (No. OF RECORDS) ON LAST MASTER FILE	JANUARY
	000000	JANU

LAYOUT OF MASTER RECORD

CARD LAYOUTS

0AA5	R	<u> </u>	4145	F	9	01 V3	1	- N
ENTRY  EN		26.01	THE SENSOR FOR DEPARATION AND COMMENTS	13 17 24 22	DE 11 61 PLARETIREMENT	Card wood to designate part-Time and UAR who didn't work during the previous month and are to be excluded from centain reports.		- blank -
Elero no.	2	91340	13/2014 13/2014	7	12652	10 30 M	•	KAPI
* 335	Sich-Pid	04.0	7 34 NO. 14		2 50.70	N. To		30.00
HEADINGS	Cot. 005.	ENTRIES	HEADIMES	(01. 005.	RUTRIES		661. 109.	ENTRIES
CARD	le.		CARD	G			7	

ATTACHMENT D

Auxiliary Outputs

01.02 32160 NAME FT D1 D 4 F Y 4	010235 0	010805 GS-07G 071060 122957	ADMINISTRATIVE	ASSIT	00	00301 1 001B 061342	1 06345 42 F	060943	E1101
01.02 35490 FT D1 D 1 F Y 4	011060 0	061231 GS-11D 070961 070961	CHEMIST	53	PHYSICAL 00	01320 1 001B 061553	1 08340 53 A	061553	K0007
01.02 46290 FT D1 D 1 M Y 1 4	092257 0	080899 GS-13F 071060 122957	CHEMIST	19 20	PHYSICAL 31 00	01320 1 001A 102740	1 11935 40 F	070143	H0643
01.02 47840 FT D1 D 1 M Y 1 4	032358 0	052432 GS-07G 071060 032358	CHEMIST 01	56	00	01320 1 001A 121754	1 06345 54 F	112656	10152
01.02 50587 . FT D1 D 1 F Y 4	101660 1	082031 GS-12A CHEMIST 101660 101660	CHEMIST	52	PHYSICAL 59 01	01320 1 0118 083155	1 08955 55 A	112359	61100
01.02 57045 FT D1 D 1 F Y 4	011258 0	102927 GS-07G 071060 011258	CHEMIST	56	PHYSICAL 00	01320 1 001B 070256	1 06345 56 F	070256	10018
01.02 59375 FT D1 D 1 M Y 5 5	082160 0	122626 GS-13A 082160 082160	CHEMIST	48 50	PHYSICAL 53 01	01320 1 011A 022358	1 10635 58 A	658060	K0629
01.02 63960 FT D1 D 2 M Y 4	113058 1	050814 GS-07G 112760 112760	PHY SCIENCE 1	ECHNICIAN	CHEMISTRY 00	Y 01311 1 0018 010241	1 06345 41 F	030843	10686
01.02 68040 WAE D1 D 1 M Y 5	0 758060	040115 GS-13F 071060 122957	CHEMIST	36 37	PHYSICAL 39 01	01320 1 011B 122452	1 11935 52 F	032453	H0644
01.03 02445 FT D1 D 2 M Y 1 4	121656 1	092122 GS-09E 121160 121160	LAB GEN MECH		00	01610 1 001A 022842	1 07095 42 F	021356	60838
01.03 04380 FT D1 D 2 M Y 1 4	022755 0	052511 GS-09G ELECTRO 021961 021961	ELECTRO DEVLP TECH	I	INSTRUM 00	00856 1 001A 081637	1 07425 37 V	062348	c370C
01.03 06510 FT D1 D 3 M Y 2 4	121557 1	070411 W -073 122560	ELECTRICIAN 01		00	02805 3 001A 052743	3 02.55 43 F	042745	H0621
01.03 12060 FT D1 D 1 M Y 4	061756 0	031910 GS-12F 071060 122957	ELECTRONIC ENGR		INSTRUMENT 00	NT 00855 1 0018 082831	1 10255 31 F	123146	60402
01.03 15150 FT D1 D 1 M Y 1 4	092158 0	041897 GS-15C 071060 032060	SUPV PHYSICIST	20 23	EL MAG 28 00	01310 1 001A 080719	1 14380 19 F	060116	10553 \$0
01.03 17130 FT D1 D 1 M Y 4	122957 0	051314 GS-12F 071060 011258	PHYSICIST	39 55	EL MAG 00	01310 1 0018 063143	1 10255 43 F	070143	H0884
01.03 17317 FT D1 D 1 M Y 5 5	062161 0	112939 GS-07G PHYSICIST 062161 062161 S	PHYSICIST S	61	01	01310 1 011B 062160	1 06345 60 V	062160 090660	J0062.1
01.03 23760 FT D1 D 1 M Y 4	050160	121929 GS-11C PHYSICIST 071060 050160	PHYSICIST	56	EL MAG 00	01310 1 001B 122051	1 08080 51 A	112254	K0279
01.03 25860 FT D1 D 1 M Y 4	040360 0	082602 GS-15B 071060 040360	PHYSICIST	21 23	EL MAG 32 00	01310 1 001B 010225	1 14055 25 A	010225	K0215
01.03 27420 FT D1 D 1 M Y 1 4	071259 0	010817 GS-14C 010861 010861	ELECTRICAL ENG	43	GENERAL 00	00850 1 001A 110834	1 12730 34 F	051639	70400
01.03 28245 FT D1 D 2 F Y 4	050160 0	030797 GS-07B 050160 043061 043061 MASTER FI	030797 GS-078 PHYS SCI TECH 43061 043061 MASTER FILE PRINTOUT (SAMPLE PAGE)	LE P	SICS	01311 1 0018 0301 <b>5</b> 5		05520 100156 A	K0276

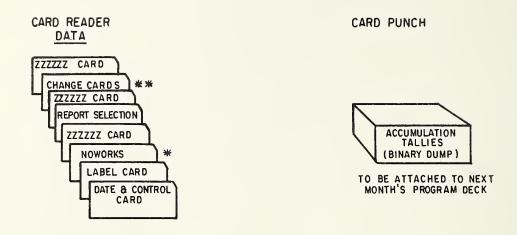
					013201006345080860J0462								
041661 81.40	041661 81.40	041661 81.40	041661 81.040	041661 81.40	12222265-07G CHEMIST 011B 080860F	041661 81,40	041661 81.40	041661 81.40	041661 81.40	041661 81.40	041661 81.40	040261 ENGINEERING TECHNICIAN	040261 ENGINEERING AID 041661 GS-048
81.00 81964 JAMES D CUNNINGHAM EFFECTIVE DATE DIVISION/SECTION.	81.00 82462 JAN T ELTING EFFECTIVE DATE DIVISION/SECTION	81.00 82979 FRANK E E GERMANN EFFECTIVE DATE DIVISION/SECTION	81.00 83220 BILLIE GREEN EFFECTIVE DATE DIVISION/SECTION	81.00 83778 VIRGINIA L HINCHMAN EFFECTIVE DATE DIVISION/SECTION	81,00 83778 FT E22FIFY 55 0428613 ASEPARATION-DISGUALIFICATION	81.00 84635 JO ANN B KIRBY EFFECTIVE DATE DIVISION/SECTION	81.00 85212 WILLIAM J LONGFELLOW EFFECTIVE DATE DIVISION/SECTION	81.00 85585 ROBERT D MCCARTY EFFECTIVE DATE DIVISION/SECTION	81.00 85805 GENEVIEVE R MICHELA EFFECTIVE DATE DIVISION/SECTION	81.00 87859 ROBERT GEORGE SMITH EFFECTIVE DATE DIVISION/SECTION	81.00 88145 RICHARD B STEWART EFFECTIVE DATE DIVISION/SECTION	81.10 86003 LEWIS O MULLEN EFFECTIVE DATE POSITION TITLE POSITION OPTION	## EFFECTIVE DATE  POSITION TILLE  POSITION OFILON  EFFECTIVE DATE  EFFECTIVE DATE

"GLEAR TEXT" PRINTOUT OF CHANGES (SAMPLE PAGE)

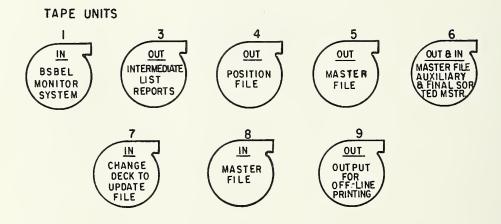


ATTACHMENT E

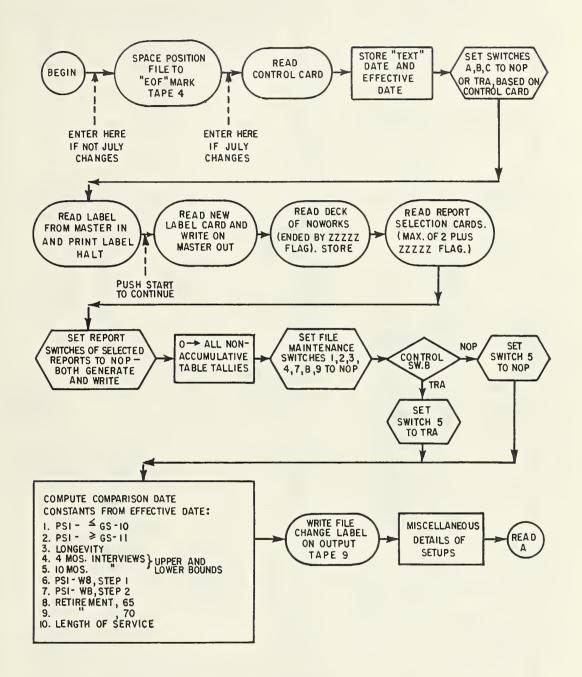
Flow Charts



- \* NOWORKS ARE PT, WAE, TEMPORARY WHO DID NOT WORK THIS MONTH.
- \* \* NORMALLY ON INPUT TAPE 7.

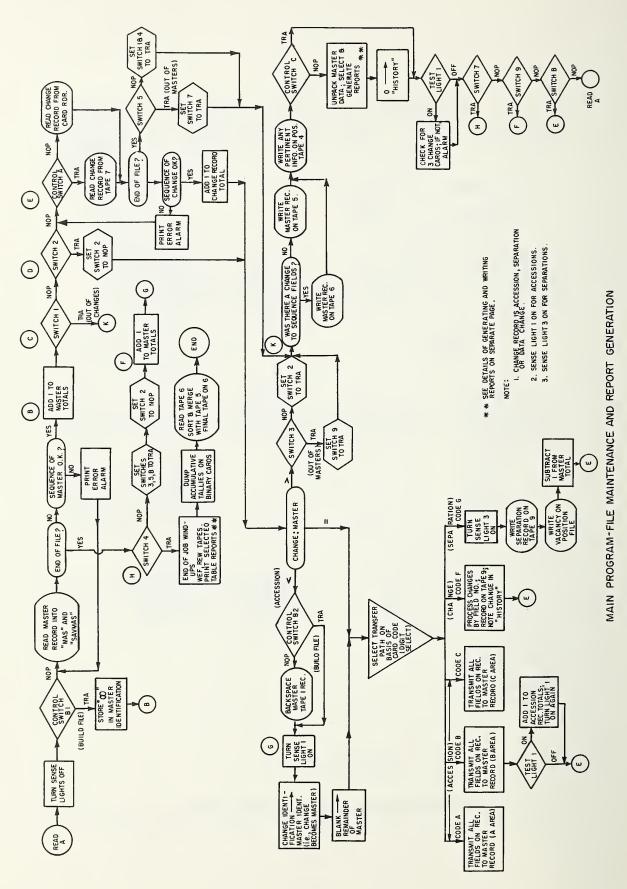


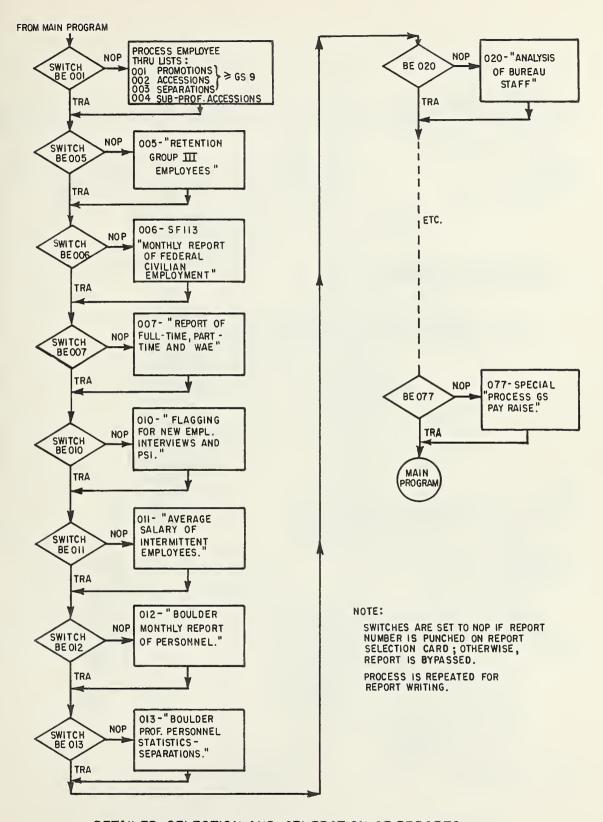
INPUT-OUTPUT LAYOUT FOR FILE MAINTENANCE AND REPORT GENERATION



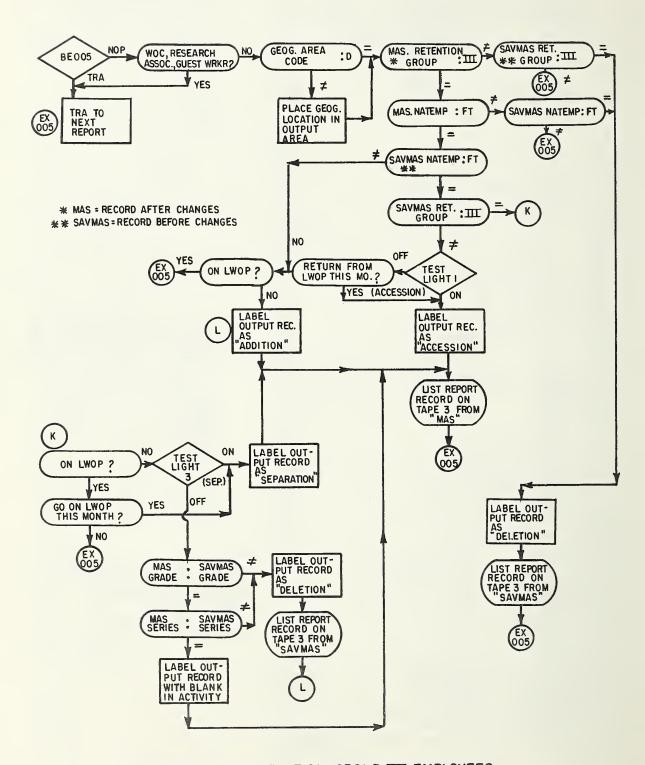
#### HOUSEKEEPING

#### FILE MAINTENANCE AND REPORT GENERATION

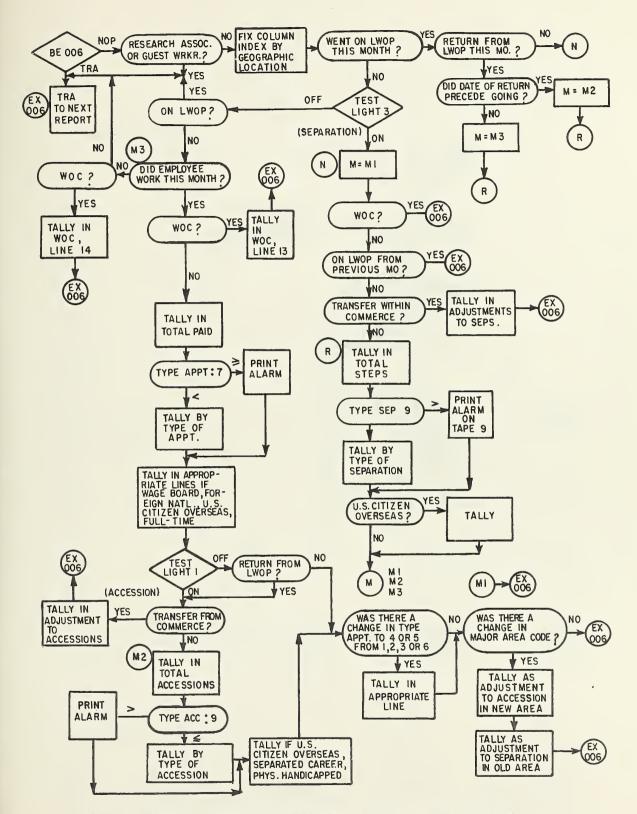




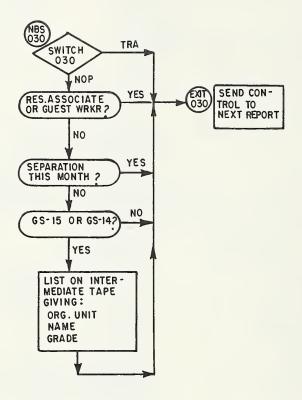
DETAILED SELECTION AND GENERATION OF REPORTS



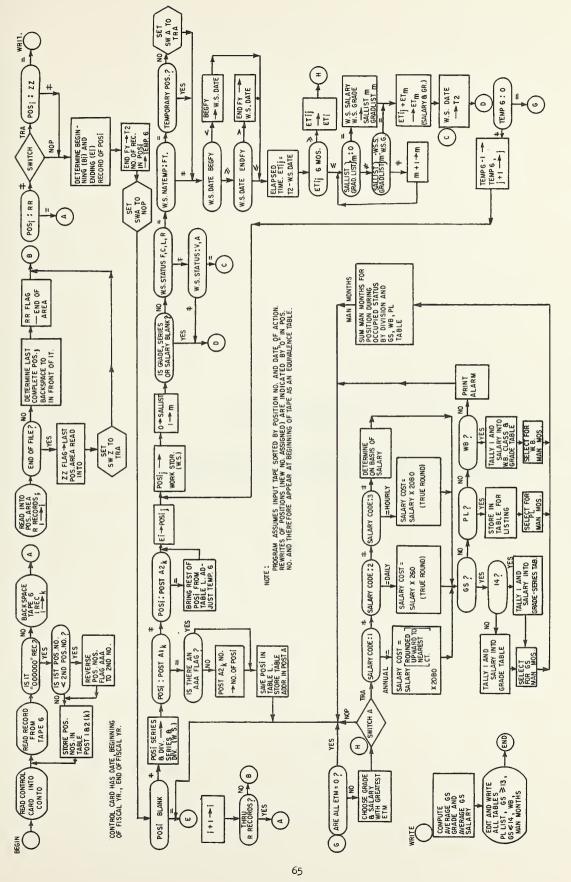
NBS REPORT 005-RETENTION GROUP III EMPLOYEES



SF 113-MONTHLY REPORT OF FEDERAL CIVILIAN EMPLOYMENT



NBS REPORT 030-LIST OF GRADES 15 AND 14



NBS REPORT 062- DETAIL OF PERSONAL SERVICES



### ATTACHMENT F

Instructions for the Computer Run and Expected Behaviour

NBS PERSONNEL REPORTS - GENEVIE URBAN, phone no.: x-7791

Project No.: 854

### DESCRIPTION AND EXPECTED BEHAVIOR DURING RUN

The program is to be run using the Bell System. The entire 32,768 memory is used. 8 tapes are needed for maximum efficiency; however, if only 7 tapes are available, the Bell System tape can be dismounted during run at "tape mount" stop. The tape layout is as follows:

- 1. Bell system.
- 2. Bell tape for snapshots--not normally needed for this run.
- 3. Blank tape for intermediate list-reports-output.
- 4. Position file tape-input and output, except at beginning of fiscal year when a blank tape is used.
- 5. Blank tape for new master file-output.
- 6. Blank tape for records involving a change to sort field(s). Also used for writing new complete master file during Phase II of run.
- 7. Monthly file changes (accessions, separations, changes), if they have been card-to-taped. Otherwise read them from card reader.
  See "control card" (E) below.
- 8. Master input tape. This is from tape unit 6 of last month's run.
- 9. Bell output. Contains printout of all changes made during run, all table-type reports selected for print this run, and print of master file.

The program is read from cards. Immediately behind the first TRA card are the control card, label card, deck of NØ WØRKS, report selection, etc. (See detailed description below.)

The run is divided into two phases.

Phase I - File maintenance and report generation. Uses all tapes described above. -- approx. 10 min.

Phase II - Sort and merge of those records which had a change to sort field(s). Uses tapes 5, 6 and 9 only. If there are no changes to sort field(s), on-line printer will say "MASTER NØW ØN 5". Normally, it will say "MASTER NØW ØN 6." Also, writing of master file on tape 9 for off-line printing. -- approx. 18 Min.

During Phase I the program will halt for tape mounting. Program also prints labels from file on-line and "IF THIS IS LAST MONTHS DATA, PUSH START". Check label; if ok, push start to proceed. Program will then proceed, reading from tapes 7 and 8, and writing on tapes 4,5, 6 and 9. When this phase is completed, Bell control cards will be read in from card reader to dump on binary cards the accumulative tallies. The first of these cards (DMP 0,64570,65553) dumps the quarterly tallies, the 2nd (DMP 0,65554,66537) dumps the semi-annual tallies, and the 3rd (DMP 0,66540,67132) dumps the annual tallies. These binary cards are to be attached to the program binary deck (just ahead of the binary transfer card) for next month's run. However, if the month to be run is the beginning month for any of the three periods mentioned, (i.e., Jan. begins quarterly, semi-annual and annual periods; March begins quarterly period; June begins quarterly and semi-annual; and September begins quarterly.), the accumulative tallies for this period(s) should not be attached, so that the tallies will be zero at the beginning of this period.

At the end of Phase I, tapes on 3,4,7, and 8 may be removed. Label tapes as follows:

Tape from Unit 3 -- "Intermediate List reports from \_\_\_\_\_\_ (mo.). Date"

Tape from Unit 4 -- "Position file, July thru \_\_\_\_\_\_. Date"

Tape from Unit 5 -- "Master file without resorts for \_\_\_\_\_. Date"

Tape from Unit 6 -- "New Master file -\*\*- for \_\_\_\_\_. Date"

Note that new master file is on <u>Unit 6</u> unless there are no changes to sort fields.

### Instructions for Preparing Card Deck for Monthly Personnel Run

The following cards  $\underline{\text{must}}$  be prepared to control the Personnel computer run:

- A. JØB Card.
- B. Any new octal corrections necessary.
- C. REM and HLT cards telling operator which tapes to mount for the run. (See tape layout above.) In the REM card it is usually only necessary to describe which tapes to mount on units 4, 7, and 8. See description of tape layout.
- D. <u>TRA Card</u>. TRA to 00144 unless a blank tape is on tape unit 4 (at beginning of fiscal year) -- then TRA to 00154.

E. Control Card. Layout of control card is as follows:

Cols. 1-18 -- date for print (e.g., JANUARY 31, 1961)

Cols. 19-24 -- effective date (e.g., 013161)

Cols. 25-27 -- 0+0, if changes are to be read from tape

-- 7/0, if changes are to be read from cards.

Cols. 28-30 -- 7/0, if regular file maintenance

-- 0+0, if build file only (no master input)

Cols. 31-33 -- 7/0, if any reports are to be formed

-- 0+0, if no reports are to be formed

F. Label Card.

Cols. 1-12 -- 000000 000000

Cols. 13-72 -- Label of file (e.g., NBS PERSØNNEL FILE, WRITTEN 2-7-61 FØR MØ. ØF JANUARY).

- G. Report Selection Card. 6 characters are used to describe each report selected--3 characters for report no., 1 character for tallying the report (T), or not (Δ)\*; 1 character for printing the report this month (P), or not (Δ)\*; 6th character is a comma. Example: 006TP, would select report 006 for tallying and printing. List type reports should always have both T and P. A maximum of 24 reports (2 cards containing up to 12 selections per card) may be selected during one run. A card containing Z's in cols. 1-12 signifies the end of the selection deck.
- H. REM and HLT cards telling operator which tapes to save at end of run. The attached coding sheet shows a typical card deck for a monthly run.
  A sample run-card is also attached.

<sup>\*∆</sup> is symbol for blank.

### SYMBOLIC CODING - NBS 704

	PROBL EM			CODER		
	LOC 6	7 8 10	11	ADDRESS, TAG, DECPEMENT	COMMENTS	1 DENT.
4		JOB		854A10 GENEVIE URBAN, PROCESS JANU	A STATE OF THE STA	
		LOD		0		
				(binary and octal deck 854A01)		
		OCT		if any		
		REM		PUT NBS 504 on 4, 407 ON 8, 362 ON	7.	
		HLT				. =
		TRA	_	00144		17 x wastermark theoretic series at \$7 or a con-
	(Cont	rol Card	;)_			
Phase			C	131610+07/07/0		
I		1 Card:)	-			
1			+	ERSONNEL FILE WRITTEN 2-12-61 FOR MO		
	(Deck	of PT a	nd	WAE employees who did not work this WOC's)	month. Be sure to inclu	ıde
-			ļ-			
	ZZZZZZZZZ		tio	n deck - 1 or 2 cards)		
			-	il deck - 1 of 2 cards)		. ==
OPT	ZZZZZZZZZ		i f	to be read from cards rather than t	ane followed by 777777	77777
IONAL	(01144)	ge deck,			ape, forfowed by LLLLLL	
-			+	card; otherwise omit this.)		-
		DMP DMP	-	0,64570,65553 0,65554,66537		
		DMP		0,66540,67132	1 Production 1 to 1 I	
¥		LOD		A reference		
		LOD		(binary deck for sort and merge	) — — — — · · · · · · · · · · · · · · ·	
		TRA				-
Phase		TRA	-		distribute Value	
11		REM	1	SAVE TAPES ON 3,4,5,6, and 8.		
		HLT	Ť	DIVI HILD ON 3,4,5,0, and o.		
		REM	!	END OF RUN.		
U		Ī				
				<del></del> .		
				<del></del>		
			1			

### ATTACHMENT G

List of Error or Warning Flags

### NBS PERSONNEL REPORTS

The following flags and indications may occur with the list of changes:

### I Flags affecting the SF113

FLAG	EXPLANATION AND ACTION REQUIRED
GEOG. LOCATION ERROR	Geographic Location is not B, C, D, E, F, or
	G. If Washington Division, location D1 is
	assumed for the SF113; if Boulder Division,
	E22 is assumed. If this is correct, no cor-
	rective action is required; if not correct,
	SF113 must be adjusted accordingly.
FT BUT DIDN'T WORK	Employee with FT nature of employment was
	shown as not working this month. Program
	treats employee as regular "No-Work"; i.e.,
	does not count him in SF113 as paid employee.
	If this assumption is correct, nature of em-
	ployment should be changed on next run; other-
	wise, he will have to be added to 113 in all
	pertinent categories.
TYPE APPT. ERROR	Type of appointment is not 2, 3, 4, 5, 6A, or
	6B. Employee is not tallied into type-of-
	appointment distribution on 113, but is tallied
	into total paid and all other pertinent cate-
	gories. Type of appointment should be deter-
	mined and 1 added to proper category.
TYPE ACCESSION ERROR	On accessions only, type of accessions is not
	0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. Employee is
	not tallied into the type-of-accession cate-
	gory on 113, but <u>is</u> tallied into total acces-
	sions and other pertinent categories. Type of
	accession should be determined and 1 added to
TYPE CERADATION EDDOR	that category.
TYPE SEPARATION ERROR	On separations only, type of separation is
	not 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. Employee is not tallied into the type of sep-
	aration category on 113, but <u>is</u> tallied into total separations. Type of separation should
	be determined and 1 added to that category.
II Flags affecting other re	
11 Tags allooding concilio	00100
DIV. NO. NOT IN TABLE	Division listed is not one of our division
	numbers. Employee is not tallied in any
	reports which show a distribution by division
	(specifically 007, 011, 012, 027, 043). Cause
	of printout should be determined and corrected,
	and reports adjusted.
GEOG. LOC. NOT IN TABLE	Affects report 035 only. Geographic location
	shown is not in the list for report 035.
*****	Report should be adjusted accordingly.

EXPLANATION	AND	ACTION	REQUIRED
THE PRIME TON	THILD	UOTION	IIIOOTIIID

FLAG	EXPLANATION AND ACTION REQUIRED
III General Flags	
CARD A, B, C,NOT ACCESSION	Accession cards are submitted for an employee already on file. Information on the accession cards replaces the information already on file. If this is correct, no action is necessary.
CHANGE FILE OUT OF SORT	Change cards are out of sort. All cards in- volved in "out-of-sort" are ignored and should be submitted next run in proper sequence.
MASTER FILE OUT OF SORT	Not likely to happen. Master record involved will be bypassed and ignored in all reports. If employee should be on file, reports will have to be adjusted and employee re-accessed next run.
REDUNDANCY ERROR ON MAS.	Same as "MASTER FILE OUT OF SORT" above.
ERROR IN READING CHANGE	Same as "CHANGE FILE OUT OF SORT" above.
CARD MISSING ACCESSION	Not all three cards (A, B, C) were submitted with accession. Card missing should be determined and proper changes (F Card) submitted next run. Reports using information on missing card will have to be adjusted.
ILLEGAL CARD NUMBER	Change card submitted with card no. not A, B, C, E, F, or G. Card should be corrected and submitted next run.

No identification -- If E, F, or G card is submitted for employee not on file (i.e., no matching division and section <u>and</u> employee no.) card is printed out. Correct identification should be determined and card submitted next month.



ATTACHMENT H

Request Form for Special Report

The state of the s												
FORM NBS-221	U	. S.	DEPARTMENT OF	COMMERCE	REPORT NO.							
(4-20-60)	н	ATION	AL BUREAU OF	STANDARDS								
2524557 521			4	^ P =								
REQUEST FOR	<del>( SP</del>	ECI	AL REP	ORI								
INSTRUCTIONS: USE THIS FORM TO RE	OUEST A	BEBOI	T TO BE DOES	ARER EROM RERO	ONNEL BATA ON							
THE IBM 704 FILE. SEND ORIGINAL A	-											
FOR ASSISTANCE IN PLANNING YOUR RE												
	BLDG. &											
REQUESTED BY	BEDG. «	ROOM		EXT.	DATE							
BRIEF STATEMENT OF USE TO BE MADE OF REPORT												
TITLE OF REPORT (GIVE REPORT A SHO		T. NOT.	WE 71715)									
TITLE OF REPORT (GIVE REPORT A SHO	oki, Dis	IINCI	VE 11122/									
DATE REQUIRED (DATA WILL BE AS OF	N	0. OF	COPIES	TYPE OF REPO	RT (CHECK ONE)							
FIRST OF MONTH PRIOR TO DATE REQUI	RED)	Jone	THREE	TILLETING O	F NAMES & DATA							
	-	_ 0 ~ E		CISTING O	NAMES & DATA							
		] TWO	FOUR	STATISTIC	AL COUNT							
AAVERAAS AS BERAAR												
COVERAGE OF REPORT WASHINGTON	ONLY	В	ULDER ONLY	WASHINGTON	AND BOULDER							
ALL STAFF EXCEPT THOSE CHECKED BEL	OW ARE	TO BE	INCLUDED IN	THE REPORT								
☐ WAE			TEMPORARY	LIMITED NOT TO	EXCEED A							
woc			SPECIFIED	TIME OR AMOUNT	OF EARNINGS							
PART-TIME		DUTY STATION OTHER THAN WASHINGTON										
STUDENTS		OR BOULDER RESEARCH ASSOCIATES AND GUEST WORKERS										
LILWOP	Odradno krajnje mare stranjem	L										
ON THE REVERSE SIDE OR ON A SEPARA												
THE REPORT, SHOWING THE FORMAT AND	REQUIR	EMENIS	. CHECK BEL	OW THE TIEMS I	J BE USED.							
DATA TO BE USED (CHECK)		г .	ETERAN'S PRE	EEDENAE								
DIVISION AND SECTION EMPLOYEE NUMBER		$\vdash$	TYPE OF ACCES									
EMPLOYEE NAME		-	TYPE OF APPOI									
DATE OF BIRTH				313 OR PL 600								
SERVICE, GRADE, STEP			ATE OF LAST	PROMOTION								
POSITION TITLE			ATE OF LAST	PAY CHANGE								
OPTION				PERIODIC STEP								
SERIES		-		CLATE OR GUEST	WORKER							
SALARY CODE			STUDENT	===								
SALARY EOD DATE			ATE OF RETUR	LOR <sup>1</sup> S DEGREE								
POSITION NUMBER			EAR OF MASTE									
ADMINISTRATIVE TITLE		-	TEAR OF PHD	IN S DEGREE								
FT, PT, WAE			RETENTION GRO	UP								
DUTY STATION			SERVICE COMPU	TATION DATE								
DEPARTMENTAL OR FIELD			STATUS OF POS	SITION								
PROFESSIONAL STATUS			ATE OF SEPAR									
SEX		- ii	TYPE OF SEPAR									
CITIZENSHIP			REASON FOR SE	PARATION								
APPROVED BY PERSONNEL DIVISION		P P A 15	CT TO BE CHA	RGED	DATE							
ALL ROTED OF PERSONNEL DIVISION		FRUJI	LO DE UNA	ind EU	37.12							
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USCOMM-NBS-DC

### ATTACHMENT I

Manual for Users of Reports



NATIONAL BUREAU OF STANDARDS

PERSONNEL REPORTS AND STATISTICS

Users Manual with Sample Reports

July, 1961



### PERSONNEL REPORTS

Title

Report Number

Title		Professional Staff Listing, Age vs Salary Professional Staff Listing, Age vs. Salary Listing for Kardex Check Employees at GS-14 and GS-15 Time in Grade of Professional Staff Promoted Geographic Survey of Federal Civilian Employment Supplement to Geographic Survey of Federal Civilian Employment Official Register Official Register Flagging for Length of Service Awards and Retirement Employee Turnover Statistics By Grade Employee Turnover Statistics By Division Employee Turnover Statistics By Division Employee Turnover Statistics By Division Frofessional Personnel Statistics Increased Inhiring Rates Increased Inhiring Rates Increased Inhiring Rates Listing for Kardex Check Aliens on Rolls
Report	Annua1	025 025 (Boulder) 026 030 031 (Boulder) 032 032 040 040 040 041 (Boulder) 042 042 042 042 043 043 043 044 (Boulder) 045 045 045 045

<u>Title</u>		Position Register Position Register Whirten Report	Detail of Personal Services Report of Wage and Salary Distribution	Supplement to Report of Wage and Salary Distribution		Student Orientation List	Student Roster	Students on Rolls	Retention Register	Retention Register	Worksheet for NSF Roster of Scientists and Engineers	Worksheet for NSF Roster of Scientists and Engineers
Report Number	Annual (Fiscal)	060 060 (Boulder) 061	062 063	0638	On Request	064	065	990	290	067 (Boulder)	020	070 (Boulder)
												2 1

## SUBJECT INDEX NBS PERSONNEL REPORTS

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REPORT NO.		760	1t052		rment	•		900		900			•	012	900	110na1006	900	900	•	900		190	ade035		061		salary011	190
SUBJECT	ALIENS, total	APPOINTMENTS, TYPE OF	Aliens by type of appointment	(Boulder)	Employees by type or appoint See also Accessions	AWARDS, LENGTH OF SERVICE	List of those eligible041 CAREER EMPLOYEES, total006	Accessions	By division (Boulder)	By geographic location	Separations	CAREER-CONDITIONAL EMPLOYEES, total	Accessions	By division (Boulder)	By geographic location	Conversions to career-conditional	CTTIZENS OVERSFAS total	Accessions	By geographic location	Separations	CLASSIFIED EMPLOYEES	Average grade001	By geographic location & gra	by geographic location, grade G	Step in grade	Part-time. WAE. & temporary who worked	during month with average salary	Total in onch anada & narrant
REPORT NO.	ıchelors, discipline (Wash)023	900	professionals (Wash)002	900	ss and professional	its, engineers,	other professionals	Of professionals with academic degrees	(Wash)023	Of U. S. citizens overseas006					:		120	by division	, by grade		:	:	:	rade			Constations 006	
SUBJECT	ACADEMIC DEGREES Professionals with Bachelors Masters, Doctors by discip	ACCESSIONS By type of accession	Monthly list, professi	Monthly total	Number by grade ranges status	Of physicists, chemists, engineers	mathematicians, and (Wash)	Of professionals wi	(Wash)	Of U. S. citizens o	Accessions	By division027,	By full-time, part-ti	By grade ranges	Percent by division (Wash)	Promotions	Keassignments	Separations, voluntary	Separations, voluntary	Total at NBS	Transfers	ALASKA EMPLOYEES, total	Accessions	By grade and step in grade	Systematics and grade	Part_time and WAF	Consestions	Separations

SUBJECT REPORT NO.	FULL_TIME EMPLOYEES, total  Average GS grade  By division  By division  By groade & salary  By geographic location  By grade & step in grade  By grade & step in grade  By professional status  By professional status  By professional status  By professional staff promoted (Wash)  Alscipline (Wash)  Time in grade of professional staff  GCS-14 AND GS-15 EMPLOYEES, name list  GCOGRAPHICAL LOCATION OF DUTY STATIONS  OF EMPLOYEES, monthly totals  OF EMPLOYEES, monthly totals  OF EMPLOYEES, monthly totals  Number of GS-14 & GS-15s (Wash)  Number in each GS grade & step  Number in each Series & grade, GS  & Wage Board  Number promoted by grades (Wash)  Of accessions  Of aliens  Of professional employees appointed  (Wash)  Of professional employees appointed  (Wash)
SUBJECT REPORT NO.	CONSULTANTS, total.  By full-time, part-time, & WAE  Totals for Wash. & Boulder  WOC by geographic location.  OCONVERSIONS TO CAREER CAREER CONDITIONAL,  totals.  CONVERSIONS TO CAREER CONDITIONAL,  OCATION  Accessions.  Conversions to career and career-conditional  tional  of employees py states & counties  By geographic location  toolo  Series & counties  total  By geographic location  of date, type appointment  EOD date, type appointment  EOD date, type appointment  EOD date, type appointment  Conversions to career & career-conditional  of employees  Conversions to career & career-conditional  of employees assigned to  Off Series & Grade of employees  Separations  Separations  Separations  Off Series & Grade of employees  Separations  Off Series & Grade of employees  Series & Grade

SUBJECT REPORT NO.	Average salary.  Average salary.  By divisions (Boulder).  By professional status.  No. who worked during previous month,  by division.  No. who worked during previous month,  by division.  By professional status.  For Wage Board.  By professional status.  For Wage Board.  By professional status.  For Wage Board.  By professional status.  For Mage Board.  By professional status.  Employees eligible for.  PERSONNEL ACTIONS, totals.  Monthly appointments.  Monthly appointments.  Monthly appointments.  Monthly appointments.  Monthly appointments.  Appointed, name list (Wash).  By series. (Wash).  Percentage in each division (Wash).  Percentage in each division (Wash).  Professional staff, name list (Boulder).  Promotions by division (Wash).  Reasons for separations (Boulder).  Reasons for separations (Boulder).  Separations, voluntary, by division  Separations, voluntary, by division  Separations, voluntary, by grade  Outanger.
REPORT NO.	GRADES (Cont'd)           Of professional employees promoted (Wash)         001           Of professional employees separated (Boulder)         003           Of professional employees separated (Wash)         003           Of professional employees separated (Wash)         002           Of retention group III employees         002           Of separations         002           Of transfers         004           Orosasions         004           By grade
SUBJECT	GRADES (Cont'd)  Of professional employees professional employees sell promotions  Of promotions  Of reassignments  Of retention group III employ of separations  Of separations  Of transfers  Professionals, name list (Bot Time in grade of professional Theorem Wash. and Boulder.  HAWAII EMPLOYEES, total  Accessions  By grade & step in grade  Conversions to career & career Part-time & WAE  Separations  HOURLY RATES OF PAY, no. at each of the step of t

SEPARATIONS (Cont'd) Reasons for professional separations (Boulder)	Number in each step in each grade063 STUDENTS, total	Full-time, part-time, WAE020 Name list005 No. who worked previous month by division011 Separations
PROFESSIONAL EMPLOYEES (Cont'd)  Time in grade	Date of last promotion, name list of professionals (Boulder)	demic degrees (Wash) (Wash)st (Boulder)

REPORT NO.

SUBJECT

REPORT NO.

SUBJECT

REPORT NO.	.006 .021 .012 .012 .027 .027 .035 .043021
SUBJECT	WAGE BOARD EMPLOYEES, total       006         Accessions       021         By divisions (Boulder)       012         By divisions & percent (Wash)       027         By geographic location       035         By peographic location       043         By series       063         By series       063         By series       064         Pay changes       021         Promotions       021         Reassignments       021         Separations       021         Transfers       021         Turnover by divisions       043         Turnover by grades       042         WOCs, total       006         By geographic location       006
REPORT NO.	
SUBJECT	TRANSFERS WITHIN NBS  TURNOVER STATISTICS  By division  By grade  WAE EMPLOYEES, total  Average salary  By divisions (Boulder)  By geographic location  By professional status  No. who worked during prev  by division

NATIONAL BUREAU OF STANDARDS
PROMOTIONS OF PROFESSIONAL EMPLOYEES TO GS-9 AND ABOVE

FREQUENCY.....Monthly

PREPARED FOR....The Director

NATIONAL BUREAU OF STANDARNS PROMOTIONS OF PROFESSIONAL EMPLOYEES TO GS-9 AND ABOVE MAY 31, 1961

DIV			F R O M		1		
SECT.*	NAME	GRADE	TITLE	OPTION	GRADE	TITLE	OPTION
06.01		0.5	MECHANICAL ENGINEER	GENERAL.	60	MECHANICAL ENGINEER	APLD MECHS
06.02		11	PHYSICIST	MECHAN I CS	12	PHYSICIST	GENERAL
06.03		60	PHYSICIST	MECHANICS	11	PHYSICIST	MECHANICS
10.06		12	MECHANICAL ENGR	GENERAL	13	MECHANICAL ENGR	GENERAL
10.06		12	MECHANICAL ENGR	GENERAL	13	MECHANICAL ENGR	GENERAL
10.07		12	CHEMIST	PHYSICAL	13	CHEMIST	PHYSICAL
14.01		60	ELECTRONIC ENGINEER	INSTR	11	ELECTRONIC ENGINEER	INSTR
15.03	The same a second of the same control of the same same same same same same same sam	11	CHEMIST	ORGANIC	12	CHEMIST	ORGANIC
15.06		12	CHEMIST	PHYSICAL	13	CHEMIST	PHYSICAL

\*EMPLOYEES TRANSFERRING BETWEEN ORGANIZATIONAL UNITS DURING THE REPORTING PERIOD ARE LISTED IN THEIR OLD UNIT BUT CARRY THEIR NEW UNIT DESIGNATION.

NEW APPOINTMENTS OF PROFESSIONAL EMPLOYEES AT GS-9 AND ABOVE NATIONAL BUREAU OF STANDARDS

FREQUENCY.....Monthly

PREPARED FOR.....The Director

VE	OPTION	PHYSICAL	ATOMIC MOLE			
OF STANDARDS EMPLOYEES AT GS-9 AND ABOVE 1961	TITLE	CHEMIST MATHEMATICIAN MATHEMATICIAN ELECTRONIC ENGINEER PHYSICIST	PHYSICIST			
NATIONAL BUREAU OF STANDARDS NEW APPÖINTMENTS OF PROFESSIONAL EMPLOYEES AT MAY 31, 1961	GRADE	6 6 5 - 0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	65-13			
NEW APPOIN	NAME					
NBS 002	DIV. SECT.	05.00 11.01 11.01 12.04	13.05			

NATIONAL BUREAU OF STANDARDS SEPARATION OF PROFESSIONAL EMPLOYEES GS-9 AND ABOVE

COVERAGE...

........Washington only
Includes:
GS-9 to GS-15 inclusive

FREQUENCY.....Monthly

PREPARED FOR.....The Director

		ABOVE	
		AND	
	DS.	6-89	
	NATIONAL BUREAU OF STANDARDS	SEPARATIONS OF PROFESSIONAL EMPLOYEES, GS-9 AND ABOVE	1961
	BUREAU	SIONAL	MAY 31, 1961
	TIONAL	PROFES	
	Z	3 OF	
		RATIONS	
		SEPA	
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	U		:	***					te mine, a colory decidence on their principles (see
OPTION	INORGANIC	SOUND	PHYSICAL						
	LTH	C AREA	\$						
TITLE	ST TE OF HE	CIST	STINTEREST		101				
	CHEM I I NST I TUT	PHYSI NOT LIV	CHEMI						
SALARY	GS-09 7425 CHEMIST TRANSFERRED TO NAT INSTITUTE OF HEALTH	GS-11 8080 PHYSICIST NO RETURN FROM LWOP NOT LIVING IN DC AREA	GS-09 74.25 CHEMIST DESIRES JOB MORE SUITED TO INTERESTS	1					
Ś	ANSFERRE	RETURN	SIRES JO						
GRADE	GS-09	1	GS-09	en estado em constituido en estado e	the symptotic field of the second				
	FOR SEPARATION	FOR SEPARATION	FOR SEPARATION -		:		and the state of t		
			í	e engelling of a collective design of the collective of			a data and companies of the companies of		
NAME	REASON	REASON	REASON						
	NAME	NAME	NAME						
DIV	05.05	06.01	5.07						
Δv	0	0	-						

NATIONAL BUREAU OF STANDARDS NEW APPOINTMENTS OF SUB-PROFESSIONAL EMPLOYEES

COVERAGE.....mashington only

FREQUENCY.....Monthly

PREPARED FOR.....The Director

shows where sub-professionals have been hired in place of professionals SOURCE DATA FOR.....Report prepared by Personnel Division which

98

OPTION					CIVIL ENGRG	PHYSICS		ELEC ENGR	GENERAL
TITLE	LABORATORY GEN MECH	LABORATORY GEN MECH	LABORATORY GEN MECH	LABORATORY GEN MECH	STUDENT ASSISTANT	STUDENT TRAINEE	PHYSICAL SCIENCE AID	STUDENT TRAINEE	HUBL BINEON TO DEVIDE TECH
						1			
N A M E					N.				
DIV SECT. NAME	06.01		07.02	07.05	10.00	05.00	02.06	14.00	02 006
		06.01							

# OCCUPATIONAL SURVEY OF RETENTION GROUP III EMPLOYEES

All in Retention Group III (Temporary) Includes: COVERAGE....

FREQUENCY.....Monthly

PREPARED FOR......Recruitment and Placement Section,

Personnel Division

tallied report for Civil Service Commission SOURCE DATA FOR.....Recruitment and Placement Section prepares

S PAGE 1	DUTY STATION ACTIVITY			SEPARATION	The state of the s		DELETION	DELETION	ADDITION									ADDITION DELETION		ADDITION	ACCESSION		ADDITION		ADDITION	
NATIONAL BUREAU OF STANDARDS .L. SURVEY OF RETENTION GROUP III EMPLOYEES MAY 31, 1961	ON R NAME				e desire de la companya de la compan		6	-	1	ļ	Table 1989 - miner - Arabinophilips - A					e description de la company		1		1			1		1	
NAL BURE	POSITION	K0023	K0159	J0015.1	F0648	J0148	60448.3	J0022.1	K0610.1	H0213	H0435	J0250 L0002	K0931	J0010 L0100	J0620	H0187	10345	H0048 J0014.1	H0141.3	HC141.1	I0084.	K0130	10342	X 0 8 0 6 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	60240	F0853
OCCUPATIONAL SURVEY	POSITION TITLE	MORPHOLOGIST	MORPHOLOGIST	CLERK STENOGRAPHER	SECRETARY	MECHANICAL ENGR	ELECTRONIC ENGINEER	ELECTRO DEVLP TECH	ELECTRO DEVLP TECH	AFRO RES ENGR	PHYSICIST	PHYSICIST PHYSICIST	PHYSICIST	CHEMIST CHEMIST	CHEMIST	METALLURGIST	MATHEMATICIAN	LABY GEN MECH LABORATORY GEN MECH	LABY GEN MECHANIC	LABORATORY GEN MECH	LABORATORY GEN MECH	LABORALORY GEN MECH LAB GENERAL MECH	LABORATORY GEN MECH	LAB GEN MECH	S Z	LABORATORY GEN MECH
	GRADE	68-07	65-09	68-03	68-06	68-09	65-13	65-07	65-08	65-13	65-12	65-13	65-14	65-13 65-13	65-14	65-12	65-13	65-02	68-02	65-02	65-02	65-02	65-02	65-02	65-02	65-03
NBS 005	SERIES	00301	00301	00312	00318	00830	00855	00856	00856	00861	01310	01310	01310	01320	01320	material property reporting 0.1.32.1 and the second	01520	01610	01610	01610	01610	01610	01610	01610	01610	01610

NATIONAL BUREAU OF STANDARDS Report No. 005 - Boulder OCCUPATIONAL SURVEY OF RETENTION GROUP III EMPLOYEES

COVERAGE......Boulder only. Separate report for Washington Includes:

All in Retention Group III (Temporary)

....Monthly FREQUENCY PREPARED FOR......Boulder

SOURCE DATA FOR......Personnel Section prepared tallied report for

Civil Service Region III in Denver

PAGE 1	ACTIVITY	ACCESSION		DELETION					AND SERVICE AND ADMINISTRATION OF A PARTICULAR AND		MERANDINI KRIMA KANINI KANINI KANINIKANIA KANINI KANINI KANINI KANINI MERANDI MENDERIKANI KANINI MENDERIKANI KANINI MENDERIKANI			Manufacture (April 19 appropriate company includes continues a continues participates and continues of the c	Company and the contract of th	-
	STATION	E22	E22 E22 E22	E22	£22	E22	E22	E22	E22	E22 E22	E22	E22				
NATIONAL BUREAU OF STANDARDS OCCUPATIONAL SURVEY OF RETENTION GROUP III EMPLOYEES	NAME										se fina i commente de la commente de			* manufactorist		
ONAL BUREAU RVEY OF RET	POSITION NUMBER	L0134	10097.1 10097.3 10097	F0218.1	00370	06400	K0462	K0310	K0373 J0089 L0038	K0147 J0010	K0254	10101				
	POSITION TITLE	OFFICE MACHINE OPR	EAM OPERATOR EAM OPERATOR EAM OPERATOR	TELEPHONE OPERATOR	ELECTRO DEVLP TECH	PHYSICIST	PHYSICIST	SUPERVISORY PHYSICIST	PHYSICIST SUPERVISORY PHYSICIST SUPERVISORY PHYSICIST	PHYSICIST PHYSICIST	MATH STATISTICIAN	WELDER HELPER	A CONTRACTOR OF THE CONTRACTOR			
BOULDER	GRADE	68-02	65104 65104 65104	68-03	60-89	65-11	65-12	65-13	65-14 65-14 65-14	68-15 68-15	65-12	₩ -05	<ul> <li>Control</li> <li>Control</li></ul>			The state of the s
00 S 80 N	SERIES	00320	000000000000000000000000000000000000000	00382	00856	01310	01310	01310	01310 01310 01310	01310	01530	03703				

900

Report No.

NATIONAL BUREAU OF STANDARDS MONTHLY REPORT OF FEDERAL CIVILIAN EMPLOYMENT

COVERAGE...... Boulder. All paid employees Includes:

FREQUENCY......Monthly

PREPARED FOR.........Department of Commerce for transmittal to Civil Service Commission

U.S. DEPARTMENT OF COMMERCE -- NATIONAL BUREAU OF STANDARDS MAY 31, 1961 OF FEDERAL CIVILIAN EMPLOYMENT

SF113

	EMPLOYMENT AND PAYROLLS	TOTAL ALL AREAS (A)	TERR. AND POSS. OF THE U.S. C	FOREIGN DUNTRIES	CONTINENTAL U.S WASH DC OUTSII AREA WASH.A.A.	AL U.S. OUTSIDE WASH.AREA	ALASKA (F)	HAWAII (G)
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11	WAGES AND SALARY EARNED	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1	Ĩ	027	767	`	`
261	LUMP-SUM PAYMENTS WOC-EXPERTS AND CONSULTANTS OTHER WOC	-1 ∞	00	00	17	0 11	00	00
	PERSONNEL ACTIONS							
110	TOTAL ACCESSIONS EXCEPTED APPOINIMENT TRANSFER CARFER	641	0000	0000	0 0 0 C	0040	HH00	0000
19		644	000	000	100	15.2	000	000
23 23 24 24 24 24 24 24 24 24 24 24 24 24 24		n o ~ 0	0000	000	11-05	1000	,000	,000
25 27 27	U.S. CITIZENS OVERSEAS SEPARATED CAREER EMPLO PHYSICALLY IMPAIRED	0000	0000	0000	0000			0000
29	TOTAL SEPARATIONS QUIT TRANSFER	22.88	000	000	94 44 4	14	000	000
9 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		H000	0000	0000	- HO O C	0000	0000	0000
36. 6 20. 6	DISPLACEMENT EXTENDED LWOP, SUSPENSION DEATH, RETIREMENT, DISABILITY, ETC N. S. CITIZENS OVERSES		0000	0000	9400		0000	0000
38	CONVE		00	00	4 2	00	00	00

DATE

LOCATION

OFFICIAL POSITION

SIGNATURE

NATIONAL BUREAU OF STANDARDS REPORT OF FULL-TIME, PART-TIME AND WAE PERSONNEL

COVERAGE...... Mashington and Boulder Excludes: WOCs and LWOPs

.... Monthly FREQUENCY.... PREPARED FOR........General NBS distribution

SOURCE DATA FOR.......Various reports to other agencies on NBS administration

9 N 8 9 9 9	16 5 2 6 6	9 13 12	99811	1070	1000	1 0 0 1 1 2 0	16 29 19 26	53	366	183
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143 130 100	85 167 129 95	114 171 97 107	77 115 89 79	8 N O 8	137 106 97 8	17 4 140 75	254 111 135 125	242 86 105	3582	2449
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FLAGGING FOR INTERVIEWS WITH NEW EMPLOYEES AND IN-GRADE INCREASES

Excludes: WOCs

PREPARED FOR......Personnel Division

NATIONAL BUREAU OF STANDARDS FLAGGING FOR INTERVIEWS WITH NEW EMPLOYEES AND IN-GRADE INCREASES APRIL 30 , 1961

NBS 010

C 1 T Y 04-03-56 06-27-60 05-08-57 05-08-57 05-08-57 05-08-57 05-08-57 05-08-59 06-12-60 06-1	
DAY CHANGE 07-10-60 07-10-60 07-10-60 07-10-60 07-10-60 07-10-60 07-10-60 07-10-60 07-10-60 07-10-60	
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G R A D E R I G S S - 0 4 A A G S - 0 4 A A G S - 0 4 A A G S - 0 4 B G S - 0	
1 N T E R V I E W S ON DUTY 07-01-60 10 MOS	
NAME	
DILV- SECT- 01.000 01.000 01.002 01.003 01.003 01.004 01.004	

FLAGGING FOR INTERVIEWS WITH NEW EMPLOYEES AND IN-GRADE INCREASES

Separate report for Washington COVERAGE..... Excluder only.

WOCs

PREPARED FOR..... Boulder

NATIONAL BUREAU OF STANDARD. FLAGGING FOR INTERVIEWS WITH NEW EMPLOYEES AND IN-GRADE INCREASES APRIL 30, 1961

Y T I >	11-01-59	05-15-60	09-56-60		06-12-60	05-15-60	11-02-58	04-01-57
D L O N G E		07-10-60	07-10-60		07-10-60	07-10-60	07-10-60	04-01-57
PERIODICANDLONGEVITY GRADE PROMOTION PAY CHANGE PSI		05-18-58	09-56-60		06-16-57	05-19-57	11-02-58	
P E R I	GS-14C	G\$-03C	GS-05B	GS-03D	08-09D	G8-06D	G\$-03D	68-15E
INTERVIEWS EOD ON DUTY	30M 01 09-76-20							
I EO	6-70	7						
NAME							The state of the s	
DIV	79.00	79.10	79.20	79.30	79.30	79.30	79.60	19.60

AVERAGE SALARY OF INTERMITTENT EMPLOYEES

COVERAGE......Excludes:

......Monthly

FREQUENCY

PREPARED FOR......Budget Division

011

NBS

SS WB

NATIONAL BUREAU OF STANDARDS MONTHLY REPORT OF PERSONNEL

NBS-BOULDER

COVERAGE.....Boulder only Includes:

.....Monthly FREQUENCY.... PREPARED FOR......Boulder Administrative Council

SOURCE DATA FOR.....Statistical analysis of Boulder data

These constitutions are a second of the seco	eAIG	DIV. 80	DIV.	DIV. 82	DIV.	DIV. 84	DIV. 85	DIV. 87	TOTAL
PROFESSIONAL STATUS PROFESSIONAL	31	ø	75	49	74	140	48	ه. ت	209
SUB-PROFESSIONAL	ı rv	21	18	40	39	72	23	32	250
WAGE BOARD	0	159	10	2	0	m	,—1	-	176
ADMINISTRATIVE CLERICAL	47	77	10	32	15	27	0	13	230
FULL-TIME, PART-TIME, WAE									
FULL-TIME	69	249	82	117	101	193	4	92	982
PART-TIME	'n	2	_	80	6	0	-1	9	84
WAE	6	12	54	13	18	39	7	13	135
TYPE OF APPOINTMENT									
EXCEPTED, LIM. /COND.	47	-1	9	7	4	15	m	4	77
EXCEPTED PERMANENT	0	0	0	1	0	0	0	0	<b>~</b> 1
COMPETITIVE, CAREER	34	185	50	06	77	108	51	42	637
COMPETITIVE, CAREER COND.	38	73	56	36	94	115	33	61	458
TEMPORARY, LIMITED	~	2	0	<b>-</b> -1	0	2	0	~1	7
TEMPORARY,PER	9	2	Ħ	m	7	2	0	ы	18
TOTAL STAFF	83	263	113	138	128	242	87	111	1165

NATIONAL BUREAU OF STANDARDS
PROFESSIONAL PERSONNEL STATISTICS - SEPARATED EMPLOYEES
NBS-BOULDER

......Boulder only Excludes: WOCs COVERAGE.....

FREQUENCY.....Monthly

PREPARED FOR.....The Director, NBS Boulder Laboratories

SOURCE DATA FOR.....Statistical analysis of Boulder data

NO X								
	× ×	× ×	×					
SEPARATION DATE OF VOL	03-27-61	04-14-61	04-28-61		*			
DATE LAST PROMOTION	11-01-59	01-24-60	65-60-80					
FT/PT WAE FT	WAE BOULDER	FT 40 OF THE STATE						
GRADE POSITION TITLE GS-07G CHEMIST SEPARATION-DISQUALIFICATION	GS-12F MATHEMATICIAN  DOES NOT PLAN TO RETURN TO BOULDER GS-07G PHYSICIST ACCEPTING ANOTHER POSITION	GS-14B SUPV ELECTRONIC ENG ACCEPT EMPLOYMENT ELSEWHERE GS-07G ELECTRONIC ENG NEEDS MORE TIME TO DEVOTE TO	GS-12D ELECTRONIC ENGINEER ACCEPTED ANOTHER POSITION					
GRADE GS-07G	6S-12F - DOES - 6S-076	GS-14B - ACCE GS-076	GS-12D ACCE			,		
DATE OF BIRTH 12~22-22 SEPARATION	10-01-25 SEPARATION 05-11-36 SEPARATION	03-08-11 SEPARATION 02-19-27 SEPARATION	11-20-25 SEPARATION					
REASON FOR	REASON FOR	REASON FOR	REASON FOR					
N A M E								
NAME	NAME	NAME	NAME				1	
DIV. SECT.	83.00	85.00	88.00	1				

NATIONAL BUREAU OF STANDARDS

ANALYSIS OF BUREAU STAFF

.... Washington and Boulder COVERAGE

Includes:

Research Associates and Guest Workers

.....Quarterly. Data as of March 31, June 30, Sept. 30, Dec. 31

FREQUENCY

PREPARED FOR......Bureau Personnel Committee

	3	ASHI	0 T 0 N	Z		BOUL	D FI		NBS TOTAL
	F	۵	WAE	TOTAL	<u>t</u> .	Ь	WAE	TOTAL	The second secon
PROFESSIONAL CONSULTANTS (PL 600) COLLEGE AND HS TEACHERS.	1159	9000	6 4 0 0	1267 51 1	429 1 0	13000	67	509 8 14	1776 59 15
STUDENTS TEMPORARY LIMITED	62 13 1068	24 5	18	74 17 1110	420	10000	30 25	222	96 1572
SUB-PROFESSIONAL STUDENTS TEMPORARY LIMITED OTHER	433 84 2 347	19 7 0 12	111	102 102 365	168 4 163	12 12 15 15	32	250 55 193	719 157 4 558
WAGE BOARD TEMPORARY LIMITED OTHER	306 3051	HOH	H0H	308 1 307	173 0 173	000	w.o w	176 0 176	484 1 483
ADMINISTRATIVE CLERICAL STUDENTS TEMPORARY LIMITED	517	27 2 2 2 2 2 2 5 2 5	4004	548 1 9 538	212 1 4 207	∞ ○ ○ ∞	100	230 2 4 224	778 13 762
TOTAL EMPLOYEES	2415	7.7	100	2592	982	4 8	135	1165	3757
RESEARCH ASSOCIATES AND GUEST WORKERS TOTAL WORKING AT NBS				282 2874			T PROBLEM OF THE PROPERTY OF T	23	305
		:	1						

NATIONAL BUREAU OF STANDARDS PERSONNEL ACTIVITY

Report No. 021

All Washington employees without exception Guest Workers and Research Associates ....Quarterly. Data as of March 31, June 30, Sept. 30, Dec. 31 FREQUENCY.....

PREPARED FOR.....Personnel Division

		PROFES	ROFESSIONAL		SUB-	SUB-PROF.	WAGE BD.	ADM	ADMINCLERI CAL	AL	TOTAL
	65 1-8 65	65 9-12	65 13-18	OTHER	65 1-4	65 5-11		65 1-5	65 6-9 65 10-16	10-16	
	10	6	9	œ	18	7	6	20	2	0	80
	σ	7	4	7	15	7	ω	21	ŵ	0	72
	е	19	11	0	9	On On	4	20	4	m	62
REASSIGNMENTS*	7	м	7	0	6	2	М	2	М	1	18
	2	4	0	0	0	2	H	•	1	0	25
PAY CHANGES***	ч	0	19	0	11	38	314	26	22	11	482
OTHER ACTIONS	19	4 8	47	29	47	0 10	7	32	22	18	311
TOTAL ACTIONS	45	130	. 16	38	66	109	335	127	57	30	1067

REASSIGNMENTS WITHIN SECTIONS -- NO PROMOTION INVOLVED.

\*\* TRANSFERS BETWEEN SECTIONS OR DIVISIONS AT THE SAME GRADE AND SALARY.

\*\*\* PAY CHANGES OTHER THAN PROMOTIONS -- IN GRADES, WAGE BOARD RATES, ETC.

NATIONAL BUREAU OF STANDARDS PERSONNEL ACTIVITY

Report No. 021 - Boulder

COVERAGE......Boulder only. Separate report for Washington

All Boulder employees without exception Guest Workers and Research Associates Includes:

FREQUENCY.....Quarterly. Data as of March 31, June 30, Sept. 30,

Dec. 31

PREPARED FOR..... Personnel Section, Boulder

		PROFES	PROFESSIONAL		SUB-	SUB-PROF.	WAGE BD.	ADM	ADMINCLERICAL		TOTAL
	65 1-8	65 9-12	GS 13-18	OTHER	65 1-4	GS 1-4 GS 5-11		65 1-5	65 6-9 65 10-16	0-16	
ACCESSIONS	4	ın	1	0	4	-	0	9	0	0	2.1
SEPARATIONS	4	6	m	0	18	-1	-	7	0	0	64
PROMOTIONS	H	15	10	0	7	14	6	13	C	0	69
REASSIGNMENTS*	2	H	ч	0	29	2	0	9	0	0	4 2
TRANSFERS**	ξÜ	2	9	0	14	18	Н	9	၁	0	62
PAY CHANGES***	0	28	80	0	6	23	171	18	4	0	261
OTHER ACTIONS	23	17	9	0	14	22	21	15	П	-	120
TOTAL ACTIONS	39	8.7	35	0	9 5	81	203	7.1	rv.		617

REASSIGNMENTS WITHIN SECTIONS -- NO PROMOTION INVOLVED.

\*\* TRANSFERS BETWEEN SECTIONS OR DIVISIONS AT THE SAME GRADE AND SALARY.

\*\*\* PAY CHANGES OTHER THAN PROMOTIONS -- IN GRADES, WAGE BOARD RATES, ETC.

TIME-IN-GRADE OF PROFESSIONALS (GS 12 and ABOVE) AND SECRETARIES NATIONAL BUREAU OF STANDARDS

COVERAGE......washington only

Professionals, GS-12 and above and secretaries (series 18) all grades Includes:

.....Semi-annual FREQUENCY PREPARED FOR.......Bureau Personnel Committee

NBS 022

SECT. NAME	TITLE	GRADE	SALARY	DATE LAST PROMOTION	EOD DATE	TIME IN	GRADE MOS.
01.00	SECRETARY	68-04	04040	05-14-61	08-15-60	0	7
01.03	SECRETARY	68-05	04345	10-16-60	-03-5	0	00
01.01	SICI	65-12	09735	04-05-59	9-60-9	7	ы 1
01.01	PHYSICIST	65-12	10255	05-04-58	8-5	m	7
01.02	CHEMIST	65-12	0.25	03-24-57	8-15-5	4	n
01.02	CHEMIST	65-12	09735	11-15-59	10-08-52	-1	œ
01.02	CHEMIST	65-12	08955	10-16-60	11-23-59	0	ထ
01.03	ELECTRONIC ENGR	65-12	10255	06-17-56	12-31-46	Ŋ	0
01.03	PHYSICIST	65-12	10255	12-29-57	07-01-43	m	9
01.03	ELECTRICAL ENG	65-12	10515	12-24-50	07-02-56	10	9
01.03		GS-12	10255	12-29-57	08-12-46	m	9
01.04	PHYSICAL CHEMIST	65-12	09735	08-23-59	10-09-58	٦	10
01.04	PHYSICIST	65-12	08955	10-16-60	02-15-60	0	00
01.04	PHYSICIST	65-12	10775		11-04-46	14	ထ
01.05	PHYSICIST	65-12	62440		07-01-60	П	0
01.05	PHYSICIST	65-12	09215	09-18-60	05-24-51	0	o
01.05	PHYSICIST	65-12	09735	08-12-58	08-12-57	2	11
01.02	CHEMIST	65-13	11935	09-22-57	07-01-43	ы	o,
01.02	CHEMIST	65-13	10635	08-21-60	09-08-59	0	10
01.02		65-13	11935	09-08-57	03-24-53	М	10
01.03	ELECTRICAL ENGINEER	65-13	11935	07-15-56	09-10-50	ţn.	0
01.05	PHYSICIST	68-13	11935		01-14-57	4	9
01.05	PHYSICIST	65-13	10895	06-12-60	03-18-57	٦,	-
01.05	PHYSICIST	68-13	11155		07-02-56	<b>н</b> .	7
01.05	PHYSICISI	65-13	11935		02-05-24	<b>†</b> '	n ı
01.01	PHYSICIST	65-14	12470		01-22-36	-	η,
10.10	PHYSICIST	65-14	12/30		44-10-90	71	٦ ;
01.01	PHYSICIST	65-14	12730		12-19-46	-1	7
01.02		65-14	13510		04-06-29	m.	v
01.03	ELECTRICAL ENG	68-14	12730		05-16-39	2	0
01.03	PHYSICIST	65-14	13510		08-12-30	m	7
01.04	SUPV PHYSICIST	68-14	12730		09-23-30	-	ထ
01.05	PHYSICIST	65-14	<b>~</b>		02-09-48		m
	SUPERVISORY PHYSICIST	68-15	15030		05-22-41	00	7
01.01	SUPV PHYSICIST	68-15	14380		07-25-27	2	0
01.02	SUPERVISORY CHEMIST	65-15	50		-18 - 3	ы	2
01.03	SUPV PHYSICIST	68-15	14380		06-01-16	2	Ò
01.03	PHYSICIST	65-15	40		01-02-25	7	e
01.03	ELECTRONIC ENGINEER	68-15	50	04-10-55	1.4	9	9

Report No. 022 - Boulder

TIME-IN-GRADE OF PROFESSIONALS (GS 12 and ABOVE) AND SECRETARIES NATIONAL BUREAU OF STANDARDS

COVERAGE.....Boulder only Includes:

Professionals, GS-12 and above and secretaries (series 18) all grades

.....Semi-annual F REQUENCY .... PREPARED FOR......Boulder Administrative Council

NATIONAL BUREAU OF STANDARDS TIME-IN-GRADE LISTING OF PROFESSIONALS (GS 12 AND ABOVE) AND SECRETARIES JUNE 30, 1961 NBS 022 BOULDER

DIV SECT. NAME	TITLE	GRADE	SALARY	DATE LAST PROMOTION	EOD DATE	TIME IN GRADE YRS. MOS.	GRADE MOS.
79 - 10	SECRETARY	65-04	04145	11-29-59	04-00-20	7	7
79.20	SECRETARY	65-04	04040	06-11-61	08-17-60	0	-1
79.70	SECRETARY	65-04	04670	01-11-59	09-25-56	21	9
79.80	SECRETARY	65-04	04145	03-00-60	11-09-59	٦	4
79.00	SECRETARY	65-06	05490	07-10-60	01-26-59	-4	0
700 20	MATH STATISTICIAN	65-12	09475	06-12-60	12-17-59	-	<b>-</b> -1
79.80	PHYSICIST	68-12	08955		08-29-60	0	10
79.30	MATHEMATICIAN	68-13	10635	03-19-61	03-19-61	0	m
79.40	PHYSICIST	68-13	10895	05-29-60	07-21-52	Ħ	H
79.10	PHYSICIST	65-14	13510	03-25-56	02-05-47	w	m
70.60	PHYSICIST	65-14	13510		06-09-58	m	-
70.80	PHYSICAL SCIENCE ADMR	65-14	13510		09-03-57	m	10
79.00	MATHEMATICIAN	68-15	14055		08-31-59	7	10
70.50	MATH STATISTICIAN	65-15	14055	09-00-60	10-20-54	0	10
79.60	PHYSICIST	68-15	13730		10-20-60	0	æ
79.60	PHYSICIST	65-15	15030		04-01-57	4	m
79.70	PHYSICIST	68-15	14055	01-25-59	06-06-55	2	īŪ

NATIONAL BUREAU OF STANDARDS

PROFESSIONAL PERSONNEL WITH ACADEMIC DEGREES

COVERAGE.....Washington only Excludes:

Post-Doctoral Research Fellows Temporary limited Part-time

WOC's Students Faculty WAE

FREQUENCY.....Quarterly. Data as of March 31, June 30, Sept. 30, Dec. 31. Figures cumulative for period

PREPARED FOR.....The Director

NATIONAL BUREAU OF STANDARDS PROFESSIONAL PERSONNEL WITH ACADEMIC DEGREES\*

FOR THE QUARTER ENDING MARCH 31, 1961

CHEM- ENGI- MATHE- PROFES-  1310 1320 800-898 1530 1321  376 238 150 48 21 833  172 103 108 27 15 15 425  0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0								1		
CHEM- ENGI- MATHE- ISTRY NEERING MATICS 1320 800-898 1520 1320 800-898 1530 1530 238 150 48 27 238 27 246 35 6 27 25 0 0 0 2 1 0 0 0 2 1 0 0 0 2 1 0 0 0 3 5 0 0 0 3 5 0 0 0 3 5 0 0 0 3 5 0 0 0 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 6 3 5 0 0 0 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TOTALS	833	œ	425	(	7 (7)	1.64	89	- 7	747
CHEM- ENGI- ISTRY NEERING 1320 800-898 120 150 238 150 2 0 0 0 1 0 0 1 2 0 0 0 1 0 0 1 2 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	OTHER PROFES- SIONAL 1312	1.2	0	0 %	C	00	m	0	0 (	P)
CHEM- ISTRY NEERING 1320 800-898 1320 800-898 238 150 2 108 2 0 0 1 46 35 108 89	MATHE- MATICS 1520 1530	84	m	27	(	o ~i	9	0	0 4	7.2
01	ENGI- NEERING 800-898	150	H	108		⊃ ~	35	0	01	7
1310 1310 376 376 172 172 130	CHEM- ISTRY 1320	238	ri	103	•	V 0	94	2	≠-1 (	0.83
	PHYSICS 1310	376	m	172	•	00	74	w	000	130
		TOTAL	BACHELORS	SEPARATIONS TOTAL STAFF	MASTERS	SEPARATIONS	TOTAL STAFF	DOCTORS	SEPARATIONS	TOTAL STAFF

\*FULL-TIME PROFESSIONAL EXCLUDING STUDENTS, FACULTY, OTHER TEMPORARY LIMITED, AND WOC.

Report No. 023 -- Boulder

NATIONAL BUREAU OF STANDARDS

PROFESSIONAL PERSONNEL WITH ACADEMIC DEGREES

COVERAGE.....Boulder only Excludes:

Part-time WAE

Post-Doctoral Research Fellows

Temporary limited WOCs

Students

Faculty

FREQUENCY.......Quarterly. Data as of March 31, June 30, Sept. 30, Dec. 31. Figures cumulative for period

PREPARED FOR............Boulder Administrative Council

NBS 023 BOULDER

NATIONAL BUREAU OF STANDARDS PROFESSIONAL PERSONNEL WITH ACADEMIC DEGREES\*

FOR THE QUARTER ENDING MARCH 31, 1961

TOTALS	392	252	97	0,0 %
OTHER PROFES- SIONAL	12	000	000	000
MATHE- MATICS 1520 1530	4	0 0 1 1	0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	000
ENGI- NEERING 800-898	147	1 2 2 1 2 2	200	000
CHEM- ISTRY 1320	٥	001	017	00%
PHYSICS 1310	173	8210	0 0 8	00 m
	TOTAL	BACHELORS ACCESSIONS SEPARATIONS TOTAL STAFF	MASTERS ACCESSIONS SEPARATIONS TOTAL STAFF	DOCTORS ACCESSIONS SEPARATIONS TOTAL STAFF

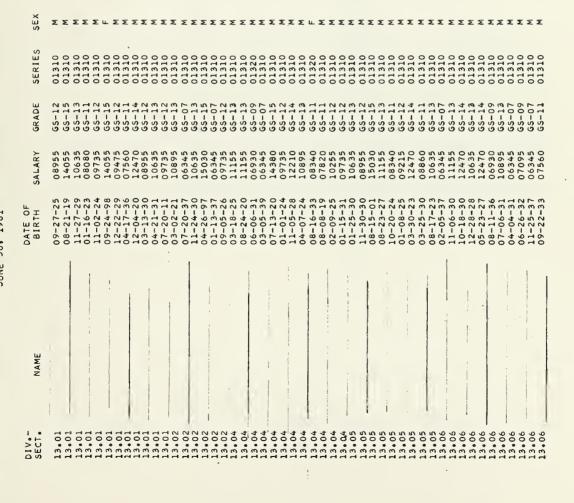
\*FULL-TIME PROFESSIONAL EXCLUDING STUDENTS, FACULTY, OTHER TEMPORARY LIMITED, AND WOC.

NATIONAL BUREAU OF STANDARDS PROFESSIONAL STAFF LISTING, AGE VS SALARY

Professionals only 

.....Annual FREQUENCY PREPARED FOR...........Bureau Personnel Committee

PAGE



Report No. 025 - Boulder

PROFESSIONAL STAFF LISTING, AGE VS SALARY NATIONAL BUREAU OF STANDARDS

COVERAGE.....Washington only Includes:

Professionals only

FREQUENCY.....Annual

PAGE 1

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SERIES 01310 01410 01410 01520 01520	01520 01520 01520 01520 01520 01520 01520 01520 01529	01520 01520 000510 000510 000810 000810 01310 01310 01330 000830 000830 000830	000830 000830 000830 000830 000830 000830 000830 000830 000830
GKADE GS-114 GS-114 GS-099 GS-099 GS-099 GS-099	65-11 65-11 65-12 65-13 65-13 65-13 65-13 65-13 65-13 65-13	65-11 65-10 65	65-09 65-07 65-07 65-07 65-13 65-13 65-13 65-13 65-13 65-13
SALARY 13510 07520 06600 06765 06600 06600	08340 07560 08080 08080 14085 14085 14085 14085 14085 15730 15730	063455 162455 05526 07425 07425 08866 08866 06845 10635 06447 06447 06447 06447 06447 06447 06447 06447 06447	005345 005345 005365 005365 00536 00536 00536 00536 00536 00536 00536 00536 00536 00536
DATE OF BIRTH 03-23-19 03-19-09 03-19-09 03-18-31 12-09-30 03-19-06 03-19-06 03-19-33 03-19-33	10-18-33 02-06-30 03-26-30 13-18-39 12-27-19 10-16-32 06-19-20 09-19-16 04-02-25 04-02-25 04-02-25	02-20-33 08-02-30 08-02-30 08-02-30 08-25-98 08-25-04 01-25-04 01-23-20 05-30-30 05-30	05-02-24 02-10-36 02-10-36 12-21-28 12-13-31 12-13-31 06-08-24 03-24-25 10-10-10-27 10-28-29 06-11-30 06-11-30
NAME			
DIV SECT- 79-25 779-25 779-30 779-30	044.00 044.00 044.00 040.00 040.00 040.00 040.00 040.00 040.00	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

Report No. 026 - Boulder

NATIONAL BUREAU OF STANDARDS LISTING FOR KARDEX CHECK COVERAGE......Boulder only. Separate report for Washington (051) Includes:

All Boulder employees

PREPARED FOR...... Personnel Section, Boulder

NBS 026 BOULDER	NATIONAL BUREAU OF STANDARDS LISTING FOR KARDEX CHECK APRIL 30* 1961	PAGE 1
DIV SECT. GRADE SERIES NO. NAME	POSITION TITLE OPTION	FT DUTY 2 TYPE STU- LAST POS. NO. WAE STA N APPT DENT PSI.
79.00 GS-06E 00318 88196	SECRETARY	K0257 FT D1 Y 4
79,00 GS-07Y 00301 84761	GENERAL CLERICAL ASST	F0200 FT E22 Y 4
79.00 GS-07A 00341 86957	ADMINISTRATIVE ASST	K0134 FT E22 Y 5
79.00 GS-09B 00301 86062	FREG. ASSIGNMENTANALYST	K0256 FI D1 Y 4
79,00 GS-14C 00301 82554	DEP_COMM_LIAISON OFFR	K0439 FT D1 Y 4
79.00 GS-15C 00301 80435	COMM LIAISON OFFICER	K0094 FT D1 Y 4
79,00 **-** 00000 81224	PHYSICAL SCIENCE ADMR	I0239 ET E22 Y 4
60068 00000 ***-** 00.66	CONSULTANT	H0142 WAE E22 Y 2
79.10 GS-03A 00305 86390	FILE CLERK	K0412 FT E22 Y 5
79.10 GS-03C 00305 88235	FILE CLERK	10144 FT E22 Y 4
79.10 GS-03A 00312 87895	CLERK-STENOGRAPHER '	H0293 FT E22 Y 5
79.10 GS-03C 00312 89181	CLERK-STENOGRAPHER	H0295 FT E22 Y 5
79.10 GS-04B 00318 87533	SECRETARY STENOGRAPHY	J0478 FT E22 Y 5
79.10 GS-05F 00301 85110	DATA CENTER SUPERVISOR	K0396 FT E22 Y 5
79.10 GS-14F 01310 87677	PHYSICIST PHYS/ATMOS	K0355 FT E22 Y 4
79.20 GS-03A 00312 B1826	CLERK-STENOGRAPHER	G0408 FT E22 Y 5
79.20 GS-05A 00010 80242	INFORMATION SPECIALIST	J0469.2 FT E22 Y 5
79.20 GS-05B 00010 85112	EDITORIAL CLERK GENERAL	J0054 PT E22 Y 4
79,20 GS-05C 00010 89414	INFORMATION SPECIALIST	J0469.1 FT E22 Y 5
79.20 GS-07C 00010 88784	PUBLICATIONS WRITER PHY SCIZENG	10065 PT E22 Y 5.
79.20 GS-09C 00010 B1188	INFORMATION SPECIALIST	J0037 FT E22 Y 4
79.20 GS-09C 00010 86948	INFORMATION SPECIALIST	J0037.1 FT E22 Y 5
79.20 GS-11F 00010 81080	INFORMATION SPECIALIST	J0090 FT E22 Y 4
79.20 GS-11F 00010 B1346	PUBLICATIONS EDITOR GENERAL	J0492 FT E22 Y 5
79.20 GS-12B 00010 81890	INFORMATION OFFICER	J0091 FT E22 Y 4

Report No. 027 NATIONAL BUREAU OF STANDARDS

REPORT ON PROFESSIONAL AND SUPPORTING STAFF IN TECHNICAL DIVISIONS

.... Washington only COVERAGE

Post-Doctoral Research Fellows Part-time and WAE Temporary-limited Students Faculty Excludes:

WOCs

.....Semi-annual. Data is as of June 30 and Dec. 31. FREQUENCY

PREPARED FOR.....The Director

REPLACES REPORTS ENTITLED. Number of professional and sub-professional employees Summary of employees in D. C. by professional, subprofessional, other classified and Wage Board

Professional personnel statistics

NBS 027

NATIONAL BUREAU OF STANDARDS REPORT ON PROFESSIONAL AND SUPPORTING STAFF IN TECHNICAL DIVISIONS MAY 31, 1961

• > 10	PROFE	PROFESSIONAL	SUB	UB-PROF.	WAG	WAGE BOARD	ADMIN	ADMINCLERICAL	TOTAL	RATIO OF PROF.	
	ON.	PERCENT	• 0 N	PERCENT	• 0 N	PERCENT	NO	PERCENT			
H	52	66.49	14	17.49	4	66.4	10	12.50	80	3.71	
2	49	58,71	36	33,02	0	000	0	8.25	109	1.77	
m	7.1	78.02	11	12,08	0	000	<b>o</b> .	68 • 6	91	6.45	
4	49	67.36	17	17.89	0	00.	14	14.73	96	3.76	
ĸ	67	85.89	9	7.69	0	000	£	6.41	78	11.16	
9	6	62.75	40	27,58	0	000	14	9.65	145	2.27	9
7	80	68.54	27	21.77	0	000	12	29.67	124	3.14	
<b>0</b> 0	67	75.28	16	17.97	0	00.	9	6.74	89	4.18	
6	73	69.52	22	20,95	0;	00.	10	9.52	105	.3.91	
10	80	53.89	55	35.71	0	00.	9	10.38	154	1.50	
11	58	70.73	7	2.43	0	00.	.22	26.82	82	28 • 9 9	
12	56	58,33	2.0.	20,83	0	000	20	20.83	96	2.79	
13	57	81.42	4	5.71	0	0.00	6	12.85	10	14.24	
14	49	59.81	32	29,90	0	000	11	10.28	107	1.99	
15	69	85.18	4	4.93	0	000	80	9487	81	17.24	3
3.2	7	28.57	0	00.	0	000	5	71.42	7	000	
TOTALS	1023	67.61	306	20.22	4	• 26	180	11.89	1513	3.34	

NATIONAL BUREAU OF STANDARDS EMPLOYEES IN GRADES GS-14 AND GS-15

COVERAGE.....Washington only

FREQUENCY.....Annual. Data as of Dec. 31.

PREPARED FOR......Bureau Personnel Committee and the Divisions

DIVISION- SECTION  SECTION  0.1.00  0.	
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DIVISION TOTAL 7 13	

NATIONAL BUREAU OF STANDARDS  TIME IN GRADE OF PROFESSIONAL EMPLOYEES PROMOTED DURING THE YEAR
COVERAGE
Includes: Professional staff GS-5 to GS-15 inclusive Excludes:
Part-time and WAE Post-Doctoral Research Fellows Students Temporary limited employees
FREQUENCYAnnual. Data as of Dec. 31.
PREPARED FORBureau Personnel Committee

RELATED REPORT..........032, Time in grade of professional staff

NBS 031

THE YEAR	SKADE							
S DURING	PREVICUS GRADE MONTHS	0	9	т	7	4	2	2
STANDARD F PRCMOTE • 1960	MEAN OF TIME IN YEARS	0	J	m	2	m	N	
ONAL BUREAU OF FESSIONAL STAF OCTOBER 31	MEAN OF							
NATIONAL BUREAU OF STANDARDS TIME IN GRADE OF PROFESSIONAL STAFF PROFOTED DURING THE YEAR OCTOBER 31. 1960	NUMBER	O	ហ	α	9	. 1	г	F
TIME	PROMOTED TO	65-7	6-89	65-11	65-12	65-13	65-14	65-15
031	PRO FROM	68-5	65-7	6-59	65-11	65-12	65-13	65-14

Report No. 031 - Boulder

TIME IN GRADE OF PROFESSIONAL EMPLOYEES PROMOTED DURING THE YEAR NATIONAL BUREAU OF STANDARDS

Separate report for Washington. COVERAGE.....Boulder only.

Includes:

Professional staff GS-5 to GS-15 inclusive

Excludes:

Post-Doctoral Research Fellows Temporary limited employees Part-time and WAE Students

Faculty

WOCs

.....Annual. Data as of Dec. 31. FREQUENCY...

.....Boulder Administrative Council PREPARED FOR...

								1							
SRADE	- AMBRICAN AMBRICAN THE														
TIME IN PREVIOUS GRADE	6	6	0	80	80		0								
MEAN OF TIME YEAF	T	1	0	2	2	2	0								
NUMBER	2	1	0	2	5	2	0						f		
Ď.				.2	5	4	5					the particular and the particula			
PROMOTED 1	65-7	6-59	65-11	65-12	65-13	65-14	65-15				!				
PROM.	68-5	65-7	6~59	65-11	65-12	65-13	65-14								
	1		1			!			1	!			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	

TIME IN GRADE OF PROFESSIONAL STAFF NATIONAL BUREAU OF STANDARDS

.......Washington only. Separate report for Boulder. Post-Doctoral Research Fellows Professional staff GS-5 to GS-15 inclusive Part-time Includes: Excludes:

COVERAGE

Students Faculty

WAE

Temporary limited employees

WOCs

.. Annual. Data as of December 31. FREQUENCY....

... Bureau Personnel Committee PREPARED FOR.... .. 031, Time in grade of professional employees RELATED REPORT....

promoted during the year

MEAN TIME IN GRADE YEARS MONTHS 3 NATIONAL BUREAU OF STANDARDS TIME IN GRADE OF PROFESSIONAL STAFF MAY 31, 1961 10 10 0 N **C**1 NUMBER PROF. STAFF 66 143 174 000 109 234 GS-11 65-13 GS-14 GRADE GS-12 65-7 68-6

83

65-15

Report No. 032 - Bnulder

## NATIONAL BUREAU OF STANDARDS TIME IN GRADE OF PROFESSIONAL STAFF

Professional staff GS-5 to GS-15 inclusive Excludes:
Part-time Post-Doctoral Research Fellows

.....Boulder only. Separate report for Washington.

Includes:

COVERAGE

WAE Temporary limited employees Students WOCs

Faculty

FREQUENCY......Annual. Data as of December 31.

PREPARED FOR.........Boulder Administrative Council

.........031, Time in grade of professional employees RELATED REPORT.

promoted during the year

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F STANDARDS FESSIONAL S 1961		MEAN TIME YEARS	-	н	2	2	2	H	2
NATIONAL BUREAU OF STANDARDS TIME IN GRADE OF PROFESSIONAL STAFF MAY 31, 1961	t.	NUMBER PROF. STAFF	56	68	93	. The section of the	54	34	2.1
NBS 032 BOULDER		GRADE	7-89	6189	GS-11	65-12	65-13	68-14	65-15

NATIONAL BUREAU OF STANDARDS

ANNUAL REPORT ON GEOGRAPHIC DISTRIBUTION

OF FEDERAL CIVILIAN EMPLOYMENT

COVERAGE......Bashington and Boulder

Includes: All employees paid last month of calendar year

FREQUENCY.....Annual

PREPARED FOR......Department of Commerce

NATIONAL BUREAU OF STANDARDS
ANNUAL REPORT ON GEOGRAPHIC DISTRIBUTION
OF FEDERAL CIVILIAN EMPLOYMENT
NOVEMBER 30, 1960

NATIONAL BUREAU OF STANDARDS ANNUAL REPORT ON GEOGRAPHIC DISTRIBUTION OF FEDERAL CIVILIAN EMPLOYMENT

Report No. 035S

OF FEDERAL CIVILIAN EMPLOYMENT

Employees in geographic locations not in the stored table on the NBS 035. COVERAGE..... Boulder Includes:

FREQUENCY..... Annual

PREPARED FOR.................. Department of Commerce

SOURCE FOR...... Additional entries by county for preparing report

NBS 035 for submission on the prescribed form.

NBS 035S NATIONAL BUREAU OF STANDARDS SUPPLEMENT TO REPORT ON GEOGRAPHIC DISTRIBUTION APRIL 30, 1961

PAGE

NOTEEMPLOYEES LISTED HERE HAVE BEEN TALLIED INTO A MAJOR AREA BUT DO NOT SHOW A COUNTY BREAKDOWN.									
Z		GRADE	GS-07B	GS-11F	GS-02B	GS-12F	GS-07B	65-086	W -052
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	FT/PT	WAE	WAE	F	<u>Б</u>	FT	<b>├</b>	F	WAE
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NATIONAL BUREAU OF STANDARDS OFFICIAL REGISTER

Report No. 040

<u>Note:</u> The requirement for this report was discontinued after the report had been programmed. The format is shown here in the event that this report might be needed for other purposes.

FREQUENCY.....As required

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PAGE 1

NATIONAL BUREAU OF STANDARDS OFFICIAL REGISTER APRIL 30, 1961

NBS 040

Report No. 041 NATIONAL BUREAU OF STANDARDS FLAGGING FOR LENGTH OF SERVICE AWARDS AND RETIREMENT

years service Employees who may be eligible for retirement Employees with 15, 25, 30, 35, 40, and 50 Includes: . د

FREQUENCY......Annual. Data as of December 31.

PREPARED FOR......Personnel Division

NBS 041

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DATE OF BIRTH	01-14-94	03-05-96 06-18-91 06-15-92 04-27-93	10-26-93 01-22-97 02-05-95 06-05-96	01-16-87 07-29-94 02-21-95 01-06-97
SERVICE COMPU- TATION DATE	08-18-46 02-20-46 12-17-26 10-17-46	09-09-36 07-31-26 02-09-36 08-01-36	12-30-46 11-18-46 09-14-26 09-14-26 07-15-46 07-29-46 01-08-31 05-21-46 05-21-46 05-21-46 05-21-36 05-31-36	06-11-26 01-17-46 11-23-36 01-17-46 01-17-46 01-18-46 05-31-36 05-28-46
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Report No. 041 - Boulder

NATIONAL BUREAU OF STANDARDS

FLAGGING FOR LENGTH OF SERVICE AWARDS AND RETIREMENT

1. Employees with 15, 25, 30, 35, 40, and 50 COVERAGE......Boulder only. Separate report for Washington. Includes:

years service

Employees who may be eligible for retirement 2

FREQUENCY......Annual. Data as of December 31.

PREPARED FOR..... Boulder

DIVISION- SECTION	NAME	GRADE	TITLE	YRS. OF SERVIAE	SERVICE COMPU- TATION DATE	DATE OF BIRTH	A G E 64-69 OVER 69
34.00		65-076 65-09E	PHYSICIST ENGINEERING TECH	15	06-02-46	01-11-83	×
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84.30		68-066	ADMIN CLERK	n c	07-12-46		
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04.48		65-066	CLERK	25	08-29-36		
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84.50	more and district to the second secon	GS-12D	PHYSICIST	15	06-23-46		
84.80		GS-13F	MECHANICAL ENGINEER			01-21-95	×
84.80		GS-12F	ST	25	06-31-36		
84.80		62-T21	SUPV HYDRAULIC ENG		6-07-1		

NATIONAL BUREAU OF STANDARDS

Report No. 042

EMPLOYEE TURNOVER STATISTICS BY GRADE VOLUNTARY SEPARATIONS

COVERAGE......washington only.

All employees who separated voluntarily (quit or Includes:

Separate report for Boulder

transferred)

Part-time Excludes:

Post-doctoral Research Fellows Temporary limited WOC's Students Faculty WAE

.....Annual. Cumulative data to December 31 FREQUENCY

PREPARED FOR..........Bureau Personnel Committee

REPLACES REPORT ENTITLED ... Personnel Statistics

GRADE"PROFESSIONAL	-80S	WAGE	NOW TAIL	
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Report No. 042 - Boulder

## EMPLOYEE TURNOVER STATISTICS BY GRADE NATIONAL BUREAU OF STANDARDS

VOLUNTARY SEPARATIONS

Post-Doctoral Research Rellows All employees who separated voluntarily (quit or transferred) Includes: Excludes:

Part-time Students Faculty WAE

Temporary limited

WOCs

FREQUENCY...........Annual. Cumulative data to December 31.

PREPARED FOR..........Boulder Administrative Council

REPLACES REPORT ENTITLED....Turnover Statistics (Boulder)

NBS 042 BOULDER EMPLOYEE TURNOVER STATISTICS BY GRADE VOLUNTARY SEPARATIONS DECEMBER 31, 1960

TOTAL	000000000000000000000000000000000000000	m	157	1.91
ADMIN.T	000000000000000	2	32	6 • 2 5
WAGE	00000000000000000	0	58	000
SUB- PROFESSIONAL	000000000000000000		26	98.4
PROFESSIONAL	00000000000000000	0	7.1	00•
GRADE	11111111 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL AVG. NO. OF	EMPLOYEES PERCENT TURNOVER	

NATIONAL BUREAU OF STANDARDS
EMPLOYEE TURNOVER STATISTICS BY DIVISION
VOLUNTARY SEPARATIONS

Report No. 043

Includes:

.... Washington only.

COVERAGE

All employees who separated voluntarily (quit or transferred)

Separate report for Boulder

Excludes:

Post-Doctoral Research Fellows Temporary limited WOC's Part-time Students WAE

Faculty

......Annual. Cumulative data through December FREQUENCY....

......Bureau Personnel Committee PREPARED FOR.....

REPLACES REPORT ENTITLED... Personnel Statistics

	TOTAL	0	000	100		0	0		1	0 0	00	F 0	0 0	0	
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EMPLOYEE TURNOVER STATISTICS BY D VOLUNTARY SEPARATIONS DECEMBER 31, 1960	SUB- PROFESSIONAL	0 0	0 0	000		000	000			0 0			0 0		
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Report No. 043 -- Boulder

## NATIONAL BUREAU OF STANDARDS

EMPLOYEE TURNOVER STATISTICS BY DIVISION VOLUNTARY SEPARATIONS

All employees who separated voluntary (quit or COVERAGE..................Boulder only. Separate report for Washington. Includes:

Part-time Excludes:

transferred)

Post-Doctoral Research Fellows

Temporary limited

WOCS

Students WAE

Faculty

FREQUENCY......Annual. Cumulative data through December.

PREPARED FOR.............Boulder Administrative Council

REPLACES REPORT ENTITLED.... Turnover Statistics (Boulder)

			1960			
		DECEMBER 31, 1960				
DIVISION	PROFESSIONAL	PROFESSIONAL	W AGE BOARD	ADMIN CLERICAL	TOTAL	
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NATIONAL BUREAU OF STANDARDS
PROFESSIONAL PERSONNEL STATISTICS
NBS-BOULDER

COVERAGE......Boulder only Excludes:

PREPARED FOR................Boulder Administrative Council

SOURCE DATA FOR.....Statistical analysis of Boulder personnel

DATE LAST PROMOTION	08-29-58 03-25-56 07-27-58 02-05-61 07-27-58	02-19-61 11-27-60 03-19-61 03-29-60	09-04-60 06-12-60 06-12-60 01-10-60 07-09-60 01-25-59	01-25-48	08-29-58
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GRADE	* * * L L T T T * * * C C C C C C C C C C C C C C	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	668-1158 668-1120 668-1120 668-1154 668-1046 668-1046 68-1046 68-1046	68-1078 68-137 8*-137 68-1096 68-12F 68-12F	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
DATE OF BIRTH	07-02-08 01-18-29 03-23-19 12-13-09 07-19-06 07-19-06 11-10-33	00000000000000000000000000000000000000	09-15-16 01-19-28 01-19-28 05-12-25 05-12-25 03-13-36 03-13-33 07-20-33 08-02-29 01-23-24	08-03-13 02-25-98 11-30-05 08-26-04 07-17-30 01-01-26	06-30-20 06-30-20 10-11-21-31 11-23-34 12-06-87 12-22-22 04-11-02 04-11-02 04-12-18 06-22-24 06-22-24 06-22-24
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NATIONAL BUREAU OF STANDARDS INCREASED INHIRING RATES

COVERAGE......washington only

Includes: Specified series, grades GS-5 to GS-17

....Annual FREQUENCY PREPARED FOR......Department of Commerce

NBS 045

SERIES		GRADE RANGES	
	68-05 - 68-07	65-09 - 65-11	GS-12 - GS-17
801	1	w	1.7
803	0	0	2
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834	0	0	e
850	0	4	11
855	ω	20	56
198	0	νd	80
892	1	v	6
893	0	0	rd.
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1390	0	10	en.
1520	18	19	88

Report No. 045 - Boulder

NATIONAL BUREAU OF STANDARDS INCREASED INHIRING RATES

Includes: Specified series, grades GS-5 to GS-17 COVERAGE.....Boulder only

....Annual FREQUENCY PREPARED FOR......Department of Commerce

SERIES		GRADE RANGES		
	65-05 - 65-07	68-09 - 68-11	68-12 - 65-17	
801	↔	0	7	
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NATIONAL BUREAU OF STANDARDS OCCUPATIONS OF FEDERAL EMPLOYEES GS EMPLOYEES

Report No. 047

COVERAGE.....Includes:

Includes:

All full-time employees

FREQUENCY......Annual. Data as of October 31.

PREPARED FOR...........Department of Commerce, which transmits to CSC

OTHER STATES	& wound on the state of the sta
HAWAII	
ALASKA	
WASH. DC METRO. AREA	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
GRADE	00000000000000000000000000000000000000
SERIES	TOTAL 0 10 0 10

NATIONAL BUREAU OF STANDARDS OCCUPATIONS OF FEDERAL EMPLOYEES

WAGE BOARD

Includes: All full-time employees COVERAGE......Boulder

FREQUENCY.....Annual. Data as of Oct. 31.

OTHER STATES	, , , , , , , , , , , , , , , , , , ,
HAWAII	
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GRADE	**************************************
SERIES	101AL 2805 2805 2805 2805 2805 2805 2805 2805

NATIONAL BUREAU OF STANDARDS LISTING FOR KARDEX CHECK

Report No. 051

Includes: All Washington employees

PREPARED FOR.....Personnel Division

NBS 051		NATIONAL BUREAU OF STANDAKUS LISTING FUR KAKDEX CHECK JULY 31, 1961	DAKUS					PAGE	SE 3	
					± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±		1 → C		DATE	
DIV SECT. GRADE SERIES NO.	NAME	POSITION TITLE	OPTION	Pos. No.		STA	A APPT		SIU- LASI UENT PSI	
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01.03 GS-05A 00318 45513		SECRETARY	TYPING	K0776	FT	, D1	≻- 1		101000	
01.03 65-076 01310 17317		PHYSICIST		J0062.1	۲.	D1	ح	S	062161	
01.03 65-076 01310 28470 _	t	PHYSICIST		J0062	FT	01	.a	S	061300	
01.03 GS-07B 01311 28245		PHYS SCI TECH	PHYSICS	K0276	FT	01	7		043001	
01.03 GS-09G 00856 04380		ELECTRO DEVLP TECH	INSTRUM	30755	FT	D1	7		196170	
01.03 GS-09E 01610 02445_		LAB GEN MECH		60838	FT	01	≻ 4		121160	
01.03 GS-09F 01610 42660		LAB GEN MECH		H0267	FT	01	4		043061	
01.03 GS-11F 00855 54023		ELECTRONIC ENGINEER	INSTRUM	62000	FT	01	<b>≻</b>		126721	
01.03 GS-11C 01310 23760	1	PHYSICIST	EL MAG	K0279	L	01	≻ .4		091060	
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01.03 GS-11C 01310 66960		PHYSICIST	EL MAG	K0277	FT	D1	≻ .t		000000	
01.03 GS-12C 00850 48550		ELECTRICAL ENGINEER	EQUIPMENT	L0250	T	D1 .	7	S		
01.03 GS-12X 00850 58575	)	ELECTRICAL ENG		00486	FT	D1	4		198010	
01.03 GS-12F 00850 60900		ELECTRICAL ENG		H0883	FT	01	4		122957	
01.03 GS-12F 00855 12060		ELECTRONIC ENGR	INSTRUMENT	60402	FT	01	7		122957	
01.03 GS-12F 01310 17130	i	PHYSICIST	EL MAG	H0884	FT	01	7		011250	
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NATIONAL BUREAU OF STANDARDS ALIENS ON ROLLS

COVERAGE.....Mashington and Boulder Excludes: WOCs

.....Annual. Data as of June 30.

FREQUENCY....

PREPARED FOR.....The Director

PAGE 1

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		SALARY	50.00	50.00	50.00	20.00	50.00	50.00	40.00	45.00	08955	10255	12470	12210	08955	11935	11155
		POSITION TITLE	CONSULTANT	CONSULTANT	CONSULTANT	CONSULTANT	CONSULTANT	CONSULTANT	CONSULTANT	CONSULTANT	PHYSICIST	PHYSICIST	PHYSICIST	CHEMIST	PHYSICIST	CHEMIST	PHYSICIST
		GRADE	***	***	*** **	***-**	***-**	*** **	***-**	***-**	GS-12A	GS-12F	GS-14B	GS-14A	GS-12A	GS-13F	6S-13C
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NATIONAL BUREAU OF STANDARDS WHITTEN REPORT

......Washington and Boulder

COVERAGE.....

Includes: Full-time, GS employees only

Excludes: LWOPs

FREQUENCY.....Annual. Data as of June 30.

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NATIONAL BUREAU OF STANDARDS DETAIL OF PERSONAL SERVICES PT 313 LIST

PL 313 LIST

All full-time permanent ungraded positions filled at any time during the fiscal year. Includes:

FREQUENCY.....Annual as of June 30.

PREPARED FOR................. Bureau of the Budget

SOURCE FOR......Preparation of final report by the Budget Division

NRS 062

NATIONAL RUREAU OF STANDARDS DETAIL OF PERSONAL SERVICES JUNE 30, 1961

PL 313 LIST

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POSITION TITLE	SUPV PHYSICIST	PHYS. SCI. ADMIN.	CONSULTANT	SUPR PHYSICIST	PHYSICIST	PHYS SCI ADMINISTRATOR	PHYSICAL SCIENCE ADMR	PHYSICIST	PHYSICAL SCIENCE ADMR	SUPERVISORY PHYSICIST	CONSULTANT	CONSULTANT	PHYSICIST				
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NATIONAL BUREAU OF STANDARDS DETAIL OF PERSONAL SERVICES GS-14 to GS-18

All full-time permanent positions,  $\frac{GS\ 14-18}{1}$ , filled at any time during the fiscal year COVERAGE......Boulder .....Annual as of June 30 Includes: FREQUENCY

SOURCE FOR.....Preparation of final report by the Budget Division

PREPARED FOR......Bureau of the Budget

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NATIONAL BUREAU OF STANDARDS
DETAIL OF PERSONAL SERVICES
WAGE BOARD

Report No. 062

All full-time permanent Wage Board positions filled at any time during the fiscal year COVERAGE......Boulder Includes:

SOURCE FOR.....Preparation of final report by the Budget Division .....Bureau of the Budget PREPARED FOR.....

FREQUENCY.....Annual as of June 30

WAGE ROARD

TOTAL SALAPY	2020	7270	0 0 0	2904	3599	534K	6173	0 10	4500	2795	4845	263711	- 0	700	1218	1150	9128	4255		0	406	000	0	0		2 6	128	92	21	482	5	200		c	: 0	O (	c	121	י ת	0 0		0 1	669	407	18	692	696	794	82	5		0	960 <i>6</i>	0	50007	2796100
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NATIONAL BUREAU OF STANDARDS
DETAIL OF PERSONAL SERVICES
GS 1-13

Report No. 062

Includes:

COVERAGE..... Boulder

All full-time permanent positions, <u>GS 1-13</u>, filled at any time during the fiscal year.

FREQUENCY.....Annual as of June 30.

PREPARED FOR................ Bureau of the Budget

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C v.	
S.	

STANDARDS SFRVICES		<b>≻</b>													
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	6.5	65
TOTAL	AVERAGE GS GRADE	AVERAGE GS SALARY
GRAND TOTAL		

NATIONAL BUREAU OF STANDARDS DETAIL OF PERSONAL SERVICES MAN-MONTHS

COVERAGE..... Boulder Includes:

Summaries of man-months during which full-time permanent positions were filled during the fiscal year.

FREQUENCY.....Annual as of June 30.

PRE PARED FOR.....Budget Division

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NATIONAL BUREAU OF STANDARDS
PART A REPORT OF WAGE AND SALARY DISTRIBUTION
A 1, GS-INSIDE WASH. METRO. AREA

Includes: All employees paid in June 

....Annual. Data as of June 30. FREQUENCY....

PREPARED FOR...........Department of Commerce who transmits to CSC

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NATIONAL BUREAU OF STANDARNS REPORT OF WAGE AND SALARY DISTRIBUTION TABLE A1, GS - INSIDE WASH, WET, AREA MAY 31, 1961			U	254	0	e	10	ø	17	00	16	4	19	1	44	47	34	25	20	Q	0	0	
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NATIONAL BUREAU OF STANDARDS

PART B REPORT OF WAGE AND SALARY DISTRIBUTION B 1, WB-INSIDE WASH. METRO. AREA

Includes:

COVERAGE......Boulder

All employees paid in June

FREQUENCY.....Annual. Data as of June 30.

PREPARED FOR.........Department of Commerce who transmits to CSC

	NO. OF EMPLOYEES	el	N m	ıω	27	⊣ જ	100	6	eri (	7 -	0 -	14	1	ଟାଣ	7 6	1 2	- ന I	4	21	~ ·	10	19	\	ı El	1	16	El F	-1 F	1	1	2	N 00	2 (2	1	m	70 0	ບ້	'n	) <del>[</del>	en e	→ <b>C</b>	00	
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PART A REPORT OF WAGE AND SALARY DISTRIBUTION A 2, GS-OUTSIDE WASH, METRO. AREA

All employees paid in June

FREQUENCY.....Annual. Data as of June 30.

PREPARED FOR......Department of Commerce who transmits to CSC

NATIONAL BUREAU OF STANDARDS

PART B REPORT OF WAGE AND SALARY DISTRIBUTION B 2, WB-OUTSIDE WASH. METRO. AREA

All employees paid in June COVERAGE......Boulder Includes:

.....Annual. Data as of June 30. FREQUENCY....

GRAND TOTAL...... 173
TOTAL, FT..... 171
TOTAL, PT AND WAE.. 2

NATIONAL PUREAU OF STANDARDS	REPORT OF WAGE AND SALARY DISTRIBUTION	TABLE B2, WB - OUTSIDE WASH. MET. AREA	MAY 31. 1961

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# NATIONAL BUREAU OF STANDARDS

Report No. 063S

... Supplementary sheets by duty station and citizenship, Employees having duty stations in Hawaii, Alaska and foreign countries, and ungraded employees prepared for submission with the four principal ......Department of Commerce who transmits to CSC SUPPLEMENT TO REPORT OF WAGE AND SALARY DISTRIBUTION FREQUENCY.....Annual. Data as of June 30 COVERAGE......Bashington and Boulder pages of the report in all areas Includes: SOURCE FOR..... PREPARED FOR.

PAGE 1

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NATIONAL BUREAU OF STANDARDS STUDENT ORIENTATION LIST

Excludes: Students on LWOP Students only .....Washington only Includes: COVERAGE

PREPARED FOR.....Personnel Division

NAME		
	POSITION TITLE	DIV•-SEC•
JEROME R BOHSE	PHYSICIST	04.03
ENING	PHYSICIST	02.05
	LABORATORY GEN MECH	02 • 04
	STUDENT ASSISTANT	05.00
RONALD JERRY COHN		02.01
	STUDENT ASSISTANT	000
	١.	03.00
THOMAS P CUMMINGS		00.90
		02.03
NIH	STUDENT TRAINEE	00.90
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UVREAU		05.00
¥		00.90
W GRANT	STUDENT TRAINEE	01.00
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АТН	STUDENT TRAINEE	05.00
	STUDENI ASSISIANI	00.90
	PHYSICISI DHX 517151	04.03
FRANK P MANIFY	STUDENT TRAINFE	00 90
MCMICHAEL	STUDENT ASSISTANT	00.90
NELSON	PHYSICIST	02.04
LIN	PHYSICIST	04.01
FORT A RHODES	EABORALORI GEN MENN	00.4
	STUDENT TRAINEE	05.00
HROCK	PHYSICIST	02 • 05
A SCHMIDT	PHYSICIST	06.01
SHARP	PHY SCI TECHNICIAN	02.01
SHOENFELD	PHYSICIST	02.06
	STUDENT TRAINER	000
STONE UR	STUDENT TRAINE	00 • 90
	ARY GEN MECH	01.03
	PHYSICAL SCIENCE AID	06\$03
	ENGINEERING AID	06.04
	STUDENT ASSISTANT	06.00
WECK	PHYSICIST	02.06
E RUSSELL WYLUDA	STUDENT ASSISTANT	00.90

NATIONAL BUREAU OF STANDARDS STUDENT ROSTER

FREQUENCY.....July 31 and Sept. 30

PREPARED FOR.....Personnel Division

Type	SCADE   POSITION TITLE	OPTION PHYSICS PHYSICS PHYSICS ELEC ENG PHYSICS PHYSICS PHYSICS PHYSICS PHYSICS PHYSICS GENERAL	T	0			
Second Student Traine	Second   S	OPTION PHYSICS GENERAL	K P T P K P T P T E E E E E E E E E E E E E E E E		TYPE		DATE OF
GS-024 STUDENT TRAINE	SS-034   STUDENT TRAINEE     SS-026   LARY GEN MECH     SS-044   STUDENT ASSISTANT     SS-044   STUDENT TRAINEE     SS-034   STUDENT TRAINEE     SS-036   PHYSICIST     SS-036   PHYSICIST     SS-037   PHYSICIST     SS-037   SPHYSICIST     SS-036   PHYSICIST     SS-037   SPHYSICIST     SS-037   SPHYSICIST     SS-037   SPHYSICIST     SS-036   SPHYSICIST     SS-037   SPHYSICIST     SS-037   SPHYSICIST     SS-038   STUDENT TRAINEE     SS-038   STUDENT TRAINEE     SS-039   STUDENT TRAINEE     SS-036   SPHYSICIST     SS-037   SPHYSICIST     SS-037   SPHYSICIST     SS-038   STUDENT TRAINEE     SS-037   SPHYSICIST     SS-037   SPHYSICIST     SS-037   SPHYSICIST     SS-037   STUDENT TRAINEE     SS-036   STUDENT ASSISTANT     SS-036   STUDENT ASSISTANT	PHYSICS PHYSICS PHYSICS PHYSICS FLEC ENG PHYSICS PHYSICS PHYSICS PHYSICS PHYSICS GENERAL	T T T T T T T T T T T T T T T T T T T	APPT.	AUTH.	DATE	TO DUTY
CS-02A   STUDENT ASSISTANT   PHYSICS   PT   6A   06-01-60	S-026   LARY GEN MECH     GS-04A   STUDENT ASSISTANT     GS-04A   STUDENT TRAINEE     GS-03A   STUDENT TRAINEE     GS-05B   STUDENT TRAINEE     GS-05B   PHYSICIAL     GS-07G   PHYSICIAL     GS-07G   PHYSICIST     GS-07G   CHEMIST     GS-07G   GHEMIST     GS-07G   GS-07G     GS-07G   GHEMIST     GS-07G   GS-07G     GS-07G   GHEMIST     GS-07G   GS-07G     GS-07G   GS-07	PHYSICS PHYSICS ELEC ENG PHYSICS PHYSICS PHYSICS PHYSICS PHYSICS GENERAL	P	ທ		06-13-60	
CS-04A   STUDENT ASSISTANT   PHYSICS   FT   2   10 04-03-61	GS-04A   STUDENT ASSISTANT     GS-04A   STUDENT TRAINEE     GS-05A   STUDENT TRAINEE     GS-05A   STUDENT TRAINEE     GS-05A   STUDENT TRAINEE     GS-05A   PHYSICIST     GS-07A   STUDENT ASSISTANT     GS-07A   STUDENT TRAINEE     GS-07A   STUDENT T	PHYSICS PHYSICS PHYSICS PHYSICS PHYSICS PHYSICS PHYSICS SENERAL	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	6B		06-01-60	
GS-074   STUDENT TRAINE   PHYSICS   PT   5   10   05-25-50	S-044   STUDENT ASSISTANT     GS-044   STUDENT TRAINE     GS-056   PHYSICIST     GS-056   PHYSICIST     GS-076   GHYSICIST     GS-076   PHYSICIST     GS-076   PHYSICIST     GS-076   PHYSICIST     GS-076   GHYSICIST     GS-076   GHYSICIT     GS-076   GHYSICIST     GS-076	PHYSICS ELEC ENG PHYSICS PHYSICS PHYSICS PHYSICS GENERAL	X Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	5	11	04-03-61	
CS-044 STUDENT TRAINEE   PHYSICS   FT   2   11   01-25-50	Second	PHYSICS PHYSICS PHYSICS PHYSICS PHYSICS GENERAL	V V P T T P W C	6A		04-03-61	
Colored Student Trainer Physics FT 2   11 01-03-61	Second	PHYSIGS PHYSIGS PHYSIGS PHYSIGS GENERAL	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	īU		05-25-60	
CS-0.56   PHYSICIST   PHYSICS   PT   S   11   O5-0.56-0.56   CS-0.56   PHYSICIST   PHYSICS   PT   S   O5-0.56-0.56   CS-0.56   CS-0.56   PHYSICIST   PHYSICS   PT   S   O5-0.56-0.56   CS-0.56   CS-	Second Company   Second Company	PHYSICS PHYSICS PHYSICS GENERAL	WAE	τ.		09-25-59	
CS-056   PHYSICIST TECHNICIAN   PHYSICS   WAE   5   11   06-28-60	SS-056	PHYSICS PHYSICS GENERAL	WAE	2	11	01-03-61	
Second Control Contr	SS-05A	PHYSICS PHYSICS GENERAL	WAE	S		06-28-60	
Control of the match   Control of the match	GS-03R PHYSICAL SCIENCE AID     GS-07G CHEMIST     GS-07G PHYSICIST     GS-07G PHYSICIST	PHYSICS GENERAL		ī.		03-18-57	
CS-076   CHEMIST	Second   S	GENERAL	1	5	_	09-02-58	
GS-02A   LABORATORY GEN MECH   WAE   68   03-16-60     GS-05G   PHYSICIST   FT   5   05-01-60     GS-07G   PHYSICIST   FT   5   05-01-60     GS-07G   PHYSICIST   FT   5   06-01-50     GS-07G   PHYSICIST   PHYSICS   PT   5   06-01-50     GS-07G   PHYSICS   PHYSICS   PT   5   06-01-50     GS-07G   PHYSICS   PT   5   11   01-21-50     GS-07G   PHYSICS   PT   5   11   01-21-60     GS-07G   PHYSICS   PT   5   11   01-21-60     GS-07G   GS-07G   PHYSICS   PT   5   06-01-50     GS-07G   GS-07G   PHYSICS   PT   5   06-01-60     GS-07G   PHYSICS   PT   FT   5   06-01-60     GS-07G   PHYSI	GS-02A   LABORATORY GEN MECH     GS-07G		1	S		06-08-59	06-20-60
September   Sept	S-05G PHYSICIST		WAF	6B		03-18-60	
GS-07G   PHYSICIST   FT   S   O6-20-60   GS-07G   PHYSICIST   FT   S   O6-20-60   GS-07G   PHYSICIST   FT   S   O6-08-50   GS-07G   PHYSICIST   FT   S   O6-08-50   GS-07G   PHYSICIST   FT   S   O6-01-50   GS-07A   STUDENT ASSISTANT   PHYSICS   FT   S   O6-01-50   GS-07A   STUDENT TRAINE   PHYSICS   FT   S   O6-01-50   GS-07G   PHYSICIST   PHYSICS   FT   S   O6-01-60   GS-07G   STUDENT TRAINE   S   O6-01-	SS-076		WAF	, r	_	03-10-60	
Second Control Contr	SS-07G		H H	ı ıc		06-20-60	
Second Coloration	S-076   S-07		- 6-	ď		06-02-00	
GS-05G	SS-056		- #-	ר ע		06-00-00	
CS-016   C	Second Company   Second Company Comp			0 1	-1	66-00-00	
Second Color	GS-02G   LABORATORY GEN MECH     GS-02A   STUDENT ASSISTANT     GS-02A   STUDENT ASSISTANT     GS-03A   STUDENT TRAINEE     GS-03A   STUDENT TRAINEE     GS-07G   PHYSICIST     GS-07G   PHYSICIST     GS-07G   PHYSICIST     GS-07G   PHYSICIST     GS-07G   CHEMIST     GS-07G   STUDENT TRAINEE     GS-07G   STUDENT ASSISTANT     GS-07G   STUDENT ASSISTAN		- 1	ر م		06-01-29	,
GS-044 STUDENT ASSISTANT MATHEMATICS WAE 2 11 05-31-60	GS-04A   STUDENT ASSISTANT     GS-02A   STUDENT ASSISTANT     GS-03A   STUDENT TRAINE     GS-03A   STUDENT TRAINE     GS-07G   PHYSICIST     GS-07G   PHYSICIST     GS-07G   PHYSICIST     GS-07G   PHYSICIST     GS-07G   GYSICIST     GS-07G   GYSICIST     GS-07G   STUDENT ASSISTANT     GS-07A   STUDENT     GS		PT	6B		12-15-58	
GS-024 STUDENT ASSISTANT PHYSICS PT 2 11 03-08-61 GS-076 PHYSICS FT 5 07-05-55 GS-074 STUDENT TRAINE PHYSICS FT 5 07-05-55 GS-076 PHYSICIST PHYSICS FT 5 07-05-55 GS-076 PHYSICIST PHYSICS FT 5 07-05-56 GS-076 PHYSICIST PHYSICIST PHYSICAL GS-076 GS-0	GS-074   STUDENT ASSISTANT	MATHEMATICS	WAE	2	-	05-31-60	
GS-07G	SS-07G PHYSICIST	PHYSICS	PT	2		03-08-61	
GS-03A STUDENT TRAINEE	SS-03A   STUDENT TRAINEE		ΡŢ	ນ		07-05-55	02-13-61
GS-04A STUDENT TRAINEE   PHYSICS   FT 5 06-09-58	GS-04A STUDENT TRAINEE     GS-07G PHYSICIST     GS-07G STUDENT ASSISTANT     GS-07G STUDENT     GS-07G STUDEN	PHYSICS	FT	ນ		03-23-59	$\circ$
GS-07G PHYSICIST   WAE   S   O6-27-60     GS-07G PHYSICIST   WAE   S   O6-20-60     GS-07G PHYSICIST   PHYSICAL   FT   S   O6-20-60     GS-07G PHYSICIST   PHYSICAL   FT   S   O5-07-55     GS-07G CHEMIST   GS-07G   GS-07G   GS-07G     GS-07G STUDENT ASSISTANT   PHYSICS   FT   S   11   O3-06-61     GS-07G STUDENT ASSISTANT   PHYSICS   FT   S   11   O3-06-61     GS-07G STUDENT ASSISTANT   CHEMISTRY   FT   S   11   O1-23-61     GS-07G STUDENT ASSISTANT   CHEMISTRY   FT   S   11   O1-23-61     GS-07G STUDENT ASSISTANT   CHEMISTRY   FT   S   O7-18-60     GS-07G STUDENT TRAINE   PHYSICS   WAE   S   O6-06-60     GS-04A STUDENT ASSISTANT   PECH ENG   WAE   S   O6-06-60     GS-04A STUDENT ASSISTANT   PECH ENG   WAE   S   O6-06-60     GS-04A STUDENT ASSISTANT   PECH ENG   WAE   S   O6-06-60     GS-07G PHYSICIST   FT   S   O6-06-60     GS-07G PHYSICIST   FT	05-076	PHYSICS	FT	ស		06-09-58	12-19-60
GS-07G PHYSICIST   WAE 5 06-20-60	GS-07G PHYSICIST   GS-07G PHYSICIST   GS-07G PHYSICIST   GS-07G CHENIST   GS-07G CHENIST   GS-07A STUDENT ASSISTANT   GS-07A STUDENT TRAINEE   GS-07A STUDENT ASSISTANT   GS-04A STUDENT ASSISTANT   GS-04A STUDENT ASSISTANT   GS-07A STUDENT   GS-07A STUDE		ΡŢ	5		06-27-60	
GS-07G PHYSICIST   PHYSICAL   FT   5   05-07-56     GS-09G CHEMIST   CS-076   CS-056     GS-03A STUDENT ASSISTANT   PHYSICS   FT   5   10     GS-03A STUDENT TRAINE   CS-076   FT   5   11     GS-03A STUDENT TRAINE   PHYSICS   FT   2   11     GS-04A STUDENT TRAINE   PHYSICS   FT   2   11     GS-04A STUDENT TRAINE   PHYSICS   FT   2   11     GS-04A STUDENT TRAINE   PHYSICS   FT   5   10     GS-07G PHYSICIST   MECH ENG   WAE   5   10     GS-07G PHYSICIST   FT   5     GS-07G PHYSICIST	GS-07G PHYSICIST   GS-09G CHEMIST   GS-04A STUDENT ASSISTANT   GS-03A STUDENT TRAINEE   GS-04A STUDENT TRAINEE   GS-03A STUDENT ASSISTANT   GS-03A STUDENT   GS-0		WAE	Ŋ		06-20-60	
GS-09G         CHEMIST         PHYSICAL         FT         5         06-20-55           GS-03A         STUDENT ASSISTANT         PHYSICS         WAE         2         11         03-06-61           GS-03A         STUDENT ASSISTANT         MECH ENG         FT         5         11         08-23-61           GS-04A         STUDENT ASSISTANT         CHEMISTRY         FT         2         11         04-03-61           GS-03A         STUDENT ASSISTANT         CHEMISTRY         FT         2         11         04-03-61           GS-03A         STUDENT TRAINE         PHYSICS         FT         5         10-23-61           GS-04A         STUDENT TRAINE         MECH ENG         WAE         5         10-123-61           GS-04A         STUDENT TRAINE         MECH ENG         WAE         5         10-123-61           GS-04A         STUDENT TRAINE         MECH ENG         WAE         5         10-10-59           GS-03A         STUDENT ASSISTANT         MECH ENG         FT         2         11         01-24-61           GS-03A         STUDENT ASSISTANT         MECH ENG         FT         2         11         01-04-61           GS-03A         STUDENT ASSISTANT         M	GS-09G CHEMIST   GS-04A STUDENT ASSISTANT   GS-03A STUDENT ASSISTANT   GS-04C STUDENT TRAINEE   GS-04A STUDENT ASSISTANT   GS-04A STUDENT ASSISTANT   GS-03A STUDENT ASSISTANT   GS-02A GS-02A STUDENT ASSISTANT   GS-02A GS-02		PT	ເກ		05-07-56	01-05-60
CS-044 STÜDENT ASSISTANT   PHYSICS   WAE   2   11   03-06-61	GS-04A STUDENT ASSISTANT   GS-03A STUDENT ASSISTANT   GS-04C STUDENT TRAINEE   GS-04A STUDENT ASSISTANT   GS-03A STUDENT TRAINEE   GS-02A STUDENT ASSISTANT   GS-02A STUDENT   GS-02A STUDENT	PHYSICAL	FT	r		06-20-55	09-30-60
GS-034 STUDENT ASSISTANT   MECH ENG   FT   5   11   08-22-60	65-03A STUDENT ASSISTANT 65-04C STUDENT TRAINEE 65-04A STUDENT ASSISTANT 65-04A STUDENT ASSISTANT 65-04A STUDENT TRAINEE 65-02A STUDENT ASSISTANT	PHYSICS	WAE	2		03-06-61	
GS-04C STUDENT TRAINE   ELEC FNGR PT 5   03-11-59     GS-02A STUDENT ASSISTANT   PHYSICS   FT 2   11 04-03-61     GS-03A STUDENT ASSISTANT   PHYSICS   FT 2   11 01-23-61     GS-03A STUDENT TRAINE   PHYSICS   FT 5   11 01-23-61     GS-04A STUDENT TRAINE   PHYSICS   PT 5   07-13-61     GS-04A STUDENT TRAINE   PHYSICS   PT 5   06-19-59     GS-04A STUDENT TRAINE   MECH ENG   WAE 2   11 01-23-61     GS-03A STUDENT ASSISTANT   MECH ENG   WAE 2   11 01-06-61     GS-03A STUDENT ASSISTANT   MECH ENG   FT 2   11 01-06-61     GS-03A STUDENT ASSISTANT   MECH ENG   FT 2   11 01-06-61     GS-03B PHYSICIST   FT 5   06-10-58     GS-05B PHYSICIST	GS-04C STUDENT TRAINEE   GS-02A STUDENT_ASSISTANT   GS-04A STUDENT ASSISTANT   GS-03A STUDENT ASSISTANT   GS-02A GS-03A	MECH FING	FT	ī		08-22-60	02-20-61
GS-02A STUDENT_ASSISTANT   PHYSICS   FT   2   11 04-03-61     GS-03A STUDENT_ASSISTANT   CHEMISTRY   FT   2   11 01-23-61     GS-02A STUDENT_RAINE   PHYSICS   FT   5   17-18-60     GS-04A STUDENT_RAINE   PHYSICS   PT   5   10 1-23-61     GS-04A STUDENT_RAINE   PHYSICS   PT   5   06-10-59     GS-03A STUDENT_RAINE   MECH ENG   WAE   5   06-06-60     GS-03A STUDENT_RAINE   MECH ENG   FT   2   11 01-04-61     GS-03A STUDENT_ASSISTANT   MECH ENG   FT   2   11 01-04-61     GS-03A STUDENT_ASSISTANT   MECH ENG   FT   2   11 01-04-61     GS-03G   PHYSICIST   FT   5   06-11-59     GS-05G   PHYSICIST   FT   5   06-11-59     GS-05G   PHYSICIST   FT   5   06-09-58     GS-05G   PHYSICIST   FT   5   06-05-05     GS-05G   PHYSICIST   FT   FT   FT   FT   FT   FT   FT	GS-O2A STUDENT ASSISTANT GS-O4A STUDENT ASSISTANT GS-03A STUDENT TRAINEE GS-O2A STUDENT ASSISTANT	FIFO FNOR	PT	ເດ		03-11-59	
SS-04A STUDENT TRAINE	GS-04A STUDENT ASSISTANT GS-03A STUDENT TRAINE GS-02A STUDENT ASSISTANT	DHYCLO	F1	0		04-03-61	
GS-034 STUDENT TRAINEE   PHYSICS   FT   5   07-18-60	GS-02A STUDENT TRAINER GS-02A STUDENT ASSISTANT	NEER TO TRY	- <u>L</u>	10		01-23-61	
SS-02A STUDENT TRAINE	GS-02A STUDENT ASSISTANT	DHYCIAC	- L	ı		07-18-60	
SS-04A STUDENT TRAINEE   PHYSICS   PT 5   06-19-59	0.0000000000000000000000000000000000000	DHX CIV	u v 3	, 0		01-23-61	-
SS-04A STUDENT TRAINE   MECH ENG   WAE   S   06-06-60     GS-04A STUDENT ASSISTANT   MECH ENG   WAE   S   11   02-27-61     GS-03A STUDENT ASSISTANT   MECH ENG   FT   2   11   01-04-61     GS-07G   PHYSICIST   FT   S   06-11-59     GS-05B   PHYSICIST   FT   S   06-11-59     GS-05B   PHYSICIST   FT   S   06-09-58	THE TOTAL TOTAL	0010010	10	ı		04-10-50	
SS-04A   STUDENT ASSISTANT   MECH ENG   WAE   2   11   02-27-61     GS-03A   STUDENT ASSISTANT   MECH ENG   WAE   2   11   01-67-61     GS-07G   PHYSICIST   WAE   5   06-16-58     GS-07G   PHYSICIST   FT   5   06-11-59     GS-05B   PHYSICAL   SCIENCE AID   PHYSICS   FT   5   06-09-58     GS-05B   FT   FT   FT   FT   FT   FT   FT   F	1000-00 ALOUS AND A STATE	WI TO IN	- 4	) u		04-40-40	02-06-61
SS-04A   STUDENT ASSISTANT   MECH ENG   FT   2   11   01-04-61     GS-07G   PHYSICIST   FT   5   06-11-59     GS-07G   PHYSICIST   FT   5   06-10-58     GS-07G   PHYSICAL SCIENCE AID   PHYSICS   FT   5   06-09-58     GS-05B   PHYSICAL SCIENCE AID   PHYSICS   FT   FT   FT   FT   FT   FT   FT   F	GS-04A STUDEN TRAINER	SECT FINE	1 4 X			09-09-00	- 1
SS-03A STUDENT ASSISTANT   MECH ENG   FT   2   11   01-04-01	GS-O4A SIDDEN ASSISTANT	APPLE MING	IJ ¥ I	7 (	<b>⊣</b> ,	02-21-01	
SS-07G PHYSICIST   WAE 5 06-16-58   GS-07G PHYSICIST   FT 5 06-11-59   GS-05B PHYSICAL SCIENCE AID PHYSICS   FT 5 06-09-58   GS-05B PHYSICAL SCIENCE AID   PHYSICS   FT 5 06-09-58   GS-05B	GS-03A STUDENT ASSISTANT		<u>-</u>	7	11	01-04-61	
65-07G PHYSICIST 65-11-59 65-05B PHYSICAL SCIENCE AID PHYSICS FT 5 06-09-58	9,40−89		X X H A	រ ព		06-16-58	
6.03 GS-05B PHYSICAL SCIENCE AID PHYSICS FT 5	GS-07G PHYSIC1ST		-	v		06-11-59	01-22-01
	•03 GS-05B PHYSICAL SCIENCE AID	PHYSICS	<b>⊢</b> LL 1	ហ		06-09-58	
6.04 MECHANICAL FT 5	6.04 GS-05A ENGINEERING AID	MECHANICAL	F	S.		06-10-59	

NATIONAL BUREAU OF STANDARDS STUDENTS ON ROLLS

COVERAGE.....Includes:

FREQUENCY......October 31 and January 31

REPARED FOR.......... Personnel Division

					<b>⊢</b>		TYPE	
DIV					EL.	$\rightarrow$	APPT.	DATE WENT
SECT. NAME	GRADE	POSITION TITLE	OPTION	SERIES	WAE	APPT.	AUTH.	ON LWOP
01.00	GS-03A	STUDENT TRAINEE	PHYSICS	01399	FT	20		
01.00	GS-04A	STUDENT TRAINEE	CHEMISTRY	01399	1	5	=	09-12-60
01.00	GS-02A	STUDENT ASSISTANT	PHYSICS	01399	⊢ ⊦ Ŀ u	ωr	11	01-09-61
01-00	65-04A	DISCIPLIANT	PHISICS	01210	- L	V 14	11	09-14-60
01001	0/01/0	PHYSICIST		01310	L	n m		09-02-59
01-03	65-026	LABY GEN MECH		01610	PT	6B		
02.00	GS-02A	STUDENT ASSISTANT	PHYSICS	01311	F	2	11	
02.00	GS-04A	STUDENT ASSISTANT	PHYSICS	01311	ΡT	6 A		
05.00	GS-04A	STUDENT ASSISTANT	PHYSICS	01311	FT	2	= :	09-01-60
02.00	GS-04A	STUDENT TRAINE	FLFC FNG	00899	WAE	נטו	11	
02.00	GS-04A	STUDENT TRAINEE	PHYSICS	01399	- i	מי		,
02.00	GS-04A	STUDENT TRAINEE	PHYSICS	01399	_ #	n (	;	00-00-60
02.00	GS-03A	STUDENT TRAINEE	PHYSICS	01311	- 6	7	= :	
02.01	080-080	PHYSICIST		01310	1 3	n u	<b></b>	
02.01	65-05A	PHY SCI LECHNICIAN	PHYSICS	01311	¥ F	0 4	-	
02.02	65-038	CHTSICAL SCIENCE AID	PHYSICS CHARBA:	01210	_ #- L U	n u	1 1	
02.03	9/0-89	- ABODATOBY OFFI	GT NE KA	01510	TA N	0 4		
02.04	AZ0180	Ľ		01310	. ⊩	<u>ئ</u> د		09-15-60
02.04	040-00	01/01/01/01		01310	MAR		-	
02.04		PHYSTOTST		01310	J <b>L</b>	ı ru		01-30-61
02.05	5.4-076	PHYSTOTST		01310	F	2		
02.00	65-076			01310	FT	. LC		
02.06	GS-02A	PHYSICAL SCIENCE AID		01311	ь	2		03-10-61
02.06	65-076	PHYSICIST		01310	<u>-</u>	2	11	
02.06	65-056	PHYSICIST		01310	<b>⊢</b> (	ر ا		
02.07	65-026	LABORATORY GEN MECH		01610	PT I	68		
03.00	GS-04A	STUDENT TRAINEE	PHYSICS	01399	L :	v (	Ξ:	08-13-59
03.00	GS-04A	STUDENT ASSISTANT	MATHEMATICS	01521	WAE	2		ļ
03.00	GS-02A	STUDENT ASSISTANT		01311	<u>⊢</u> I	2 1	11	
03.00	260-89	PHYSICIST	SOLID STATE	01310	-	2		19-40-10
03.00	GS-03A	STUDENT ASSISTANT	PHYSICS	01311	⊢ <b>,</b>	7 1	11	09-21-60
03.00	65-076	PHYSICIST		01310		n ı		01-04-01
03.00	GS-04A	STUDENT IRAINEE	PHYSICS	01399	_ }	nυ		66-01-60 60-01-60
03,00	980-89	PHYSICIST	SOLID SIAIF	01310	_ :	n u		66-07-60
03.01	65-076	CHEMIST	PHYSICAL	01350	_ F	n ម		09-10-00
03.01	65-056	PHYSICISI		01510	_	0		00-10-00
03.01	68-076	PHYSICIST		01310	_ }	Ω ៤		09-71-60
03•02	050-55	CHEMIST	1		- 1	0 1		00-00-00
m 10 • 00 0	9/0-89	PHYSICISI	PHYS1CS	01210	- F	n u		00-61-60
03.07	0/0-00	PHYSICISI	1	01210	- 1	n u	Ì	000
03.08	6S-12C	PHYSICIST	HEAL	01510	- }- L L	n ur		1 - 102 - 29
03.08	9/0-09	CHINCH TO TANK	0010010	01010	- 1	2 د		09-15-60
04.00	450100	STUDEN TRAINEE	PHYSICS	01349	_  -	n ur		09-13-60
04.00	440168	STUDENT ASSTORED	NATURE ATTO	01521	L	0	-	09-15-60
04.00	4 6 C I V V	STUDENT AND INFE	PHYSICS	01399	F	יאו וי	4	
			0010	01300	1	ıc		
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NATIONAL BUREAU OF STANDARDS RETENTION REGISTER

COVERAGE.....Includes:
Includes:
Specified series, grades and retention groups.

FREQUENCY..........on request

PREPARED FOR.........Personnel Division

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11	EOD DATE	02-14-41	05-08-57	06-15-53	02-13-41	11-26-56	07-02-56	07-02-51	11-05-56	03-26-56	03-19-56	99-90-90	01-16-61	07-02-56	11-03-47	09-01-60	11-17-52	06-17-57
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Report No. 067 - Boulder

NATIONAL BUREAU OF STANDARDS RETENTION REGISTER

COVERAGE......Includes:
Includes:
Specified series, grades and retention groups

FREQUENCY......0n request

PAGE 2

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11	EOD DATE	07-02-56	08-12-54 10646	06-01-59	03-08-54	07-09-51	01-10-44	01-03-51	10-31-49	06-10-57	06-20-55	11-23-51	10-27-58 K0087	07-02-56 10339	10-17-46 E0574	01-27-58	09-02-58	10-12-20 F0108
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Report No. 070 WORKSHEET FOR NATIONAL SCIENCE FOUNDATION ROSTER OF SCIENTISTS AND ENGINEERS NATIONAL BUREAU OF STANDARDS

Professional only, GS-13 and above

FREQUENCY......on request

PREPARED FOR........Personnel Division

SOURCE FOR.....Information for distributing questionnaires from the

National Science Foundation

DATE LAST PROMOTION	05-10-53	08-09-59	09-21-58	86-97-10	09-22-57	08-21-60	09-21-58	04-03-60		04-20-58		11-15-59		2-6	7-26-5	07-26-59	2 / 2	02-23-58	03-04-51	02-13-55	10-21-56	08-03-52	03-14-54	04-00-00	01-23-49	04-02-61	04-30-61	10-05-58	11-27-60	12-05-54	1 2	3-25		1-5	0-5	04-16-61	12-01-57	09-47-10	12-30-56	2-00-5	8-24-	
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Report No. 070 - Boulder WORKSHEET FOR NATIONAL SCIENCE FOUNDATION ROSTER OF SCIENTISTS AND ENGINEERS NATIONAL BUREAU OF STANDARDS

Professional only, GS-13 and above COVERAGE.....Boulder only Includes:

FREQUENCY...........on request

PREPARED FOR................ Personnel Office, Boulder

SOURCE FOR.....Information for distributing questionnaires from the National Science Foundation.

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### U. S. DEPARTMENT OF COMMERCE Luther H. Hodges, Secretary

NATIONAL BUREAU OF STANDARDS A. V. Astin, Director



# THE NATIONAL BUREAU OF STANDARDS

The scope of activities of the National Bureau of Standards at its major laboratories in Washington, D.C., and Boulder, Colorado, is suggested in the following listing of the divisions and sections engaged in technical work. In general, each section carries out specialized research, development, and engineering in the field indicated by its title. A brief description of the activities, and of the resultant publications, appears on the inside of the front cover.

# WASHINGTON, D.C.

Electricity. Resistance and Reactance. Electrochemistry. Electrical Instruments. Magnetic Measurements. Dielectrics.

Metrology. Photometry and Colorimetry. Refractometry. Photographic Research. Length. Engineering Metrology. Mass and Scale. Volumetry and Densimetry.

Heat. Temperature Physics. Heat Measurements. Cryogenic Physics. Equation of State. Statistical Physics. Radiation Physics. X-ray. Radioactivity. Radiation Theory. High Energy Radiation. Radiological Equipment. Nucleonic Instrumentation. Neutron Physics.

Analytical and Inorganic Chemistry. Pure Substances. Spectrochemistry. Solution Chemistry. Standard Reference Materials. Applied Analytical Research.

Mechanics. Sound. Pressure and Vacuum. Fluid Mechanics. Engineering Mechanics. Rheology. Combustion Controls.

Organic and Fibrous Materials. Rubber. Textiles. Paper. Leather. Testing and Specifications. Polymer Structure. Plastics. Dental Research.

Metallurgy. Thermal Metallurgy. Chemical Metallurgy. Mechanical Metallurgy. Corrosion. Metal Physics. Electrolysis and Metal Deposition.

Mineral Products. Engineering Ceramics. Glass. Refractories. Enameled Metals. Crystal Growth. Physical Properties. Constitution and Microstructure.

Building Research. Structural Engineering. Fire Research. Mechanical Systems. Organic Building Materials. Codes and Safety Standards. Heat Transfer. Inorganic Building Materials.

Applied Mathematics. Numerical Analysis. Computation. Statistical Engineering. Mathematical Physics. Operations Research.

Data Processing Systems. Components and Techniques. Digital Circuitry. Digital Systems. Analog Systems. Applications Engineering.

Atomic Physics. Spectroscopy. Infrared Spectroscopy. Solid State Physics. Electron Physics. Atomic Physics. Instrumentation. Engineering Electronics. Electron Devices. Electronic Instrumentation. Mechanical Instruments. Basic Instrumentation.

Physical Chemistry. Thermochemistry. Surface Chemistry. Organic Chemistry. Molecular Spectroscopy. Molecular Kinetics. Mass Spectrometry.

Office of Weights and Measures.

## BOULDER, COLO.

Cryogenic Engineering. Cryogenic Equipment. Cryogenic Processes. Properties of Materials. Cryogenic Technical Services.

Ionosphere Research and Propagation. Low Frequency and Very Low Frequency Research. Ionosphere Research. Prediction Services. Sun-Earth Relationships. Field Engineering. Radio Warning Services.

Radio Propagation Engineering. Data Reduction Instrumentation. Radio Noise. Tropospheric Measurements. Tropospheric Analysis. Propagation-Terrain Effects. Radio-Meteorology. Lower Atmosphere Physics.

Radio Standards. High Frequency Electrical Standards. Radio Broadcast Service. Radio and Microwave Materials. Atomic Frequency and Time Interval Standards. Electronic Calibration Center. Millimeter-Wave Research. Microwave Circuit Standards.

Radio Systems. High Frequency and Very High Frequency Research. Modulation Research. Antenna Research. Navigation Systems.

Upper Atmosphere and Space Physics. Upper Atmosphere and Plasma Physics. Ionosphere and Exosphere Scatter. Airglow and Aurora. Ionospheric Radio Astronomy.

